



THE SEDONA CONFERENCE

Framework for Analysis of Standard-Essential Patent (SEP) and Fair, Reasonable, and Non-Discriminatory (FRAND) Licensing and Royalty Issues (Stage One)

A Project of The Sedona Conference
Working Group on
Patent Damages and Remedies (WG9)

FEBRUARY 2018 PUBLIC COMMENT VERSION



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Preface

Welcome to the February 2018 Public Comment Version of The Sedona Conference *Framework for Analysis of Standard-Essential Patent (SEP) and Fair, Reasonable, and Non-Discriminatory (FRAND) Issues (Stage One)*, a project of The Sedona Conference Working Group on Patent Damages and Remedies (WG9). This is one of a series of Working Group commentaries published by The Sedona Conference, a 501(c)(3) research and educational institute dedicated to the advanced study of law and policy in the areas of antitrust law, complex litigation, and intellectual property rights. The mission of The Sedona Conference is to move the law forward in a reasoned and just way.

The mission of WG9, formed in November 2010, is “to create guidelines that will help to clarify and guide the evolution of patent damages and remedies considerations to encourage patent damages and remedies law to remain current with the evolving nature of patents and patent ownership.” The Working Group consists of members representing all stakeholders in patent litigation.

The WG9 *Framework* drafting team was launched in 2015 and is led by the editors David W. Long, Mark Selwyn, and Leah Waterland. Earlier drafts of this publication have been a focus of dialogue at the WG9/WG10 Joint Midyear Meeting in Miami in May 2015, the WG9/WG10 Joint Midyear Meeting in Pasadena in February 2016, and the WG9/WG10 Joint Annual Meeting in Houston in February 2017. The editors have reviewed the comments received through the Working Group Series review and comment process.

This *Framework* represents the collective efforts of many individual contributors. On behalf of The Sedona Conference, I thank in particular R. Eric Hutz, the Chair of WG9 who serves as the Editor-in-Chief of this publication, and Matthew Powers, current Vice-Chair of WG9, and Andrea Weiss Jeffries, Chair Emeritus of WG9, who are both serving as our WG9 Steering Committee Liaisons. I also thank everyone else involved for their time and attention during this extensive drafting and editing process, including: David W. Long, Mark Selwyn, Leah Waterland, Chris Dunstan, Byron Holz, Anne Layne-Farrar, Richard J. Stark, Koren W. Wong-Ervin, Maura L. Rees, and Theodore Stevenson, III.

The Working Group has had the benefit of candid preliminary comments from numerous members of the judiciary. The statements in this *Framework* are solely those of the non-judicial members of the Working Group; they do not represent any judicial endorsement of the recommended practices.

Given the high stakes and highly contentious nature of these SEP/FRAND issues, it is important to emphasize the disclamatory language on the cover of this and all Sedona publications; therefore, statements herein “do not necessarily represent the views of any of the individual participants or their employers, clients, or any organizations to which they may belong.” It would be expressly contrary to the Sedona consensus, non-partisan spirit, and mission to move the law forward in a reasoned and just way for the contents of this Sedona publication to be used against any of its WG9 member contributors in a litigation or other contexts.

Please note that this version of the *Framework* is open for public comment through June 30, 2018, and suggestions for improvements are welcome. After the deadline for public comment has passed, the drafting team will review the public comments and determine what edits are appropriate for the

final version. Please send comments to comments@sedonaconference.org or fax them to 602-258-2499.

This Stage One publication does not address all of the important issues that have been identified by WG9 on these SEP/FRAND issues; some will be addressed in the forthcoming Stage Two publication later this year.

The *Framework* will be updated to account for future significant developments impacting this topic. The Sedona Conference hopes that, as the case law develops further, WG9 will follow with a series of consensus, non-partisan principles and best practices for the future case management of SEP/FRAND litigation issues, which will evolve into authoritative statements of law, both as it is and as it should be.

Craig W. Weinlein
Executive Director
The Sedona Conference
February 2018

Foreword

In 2012, Working Group 9 (WG9) began an effort to add clarity and predictability to the area of patent remedies. Participants and observers of WG9 included a diverse group of in-house and outside attorneys representing both practicing and non-practicing entities, expert witnesses involved in damages issues, and members of the federal judiciary. These efforts culminated in the Sedona Conference *Commentary on Patent Reasonable Royalty Determinations*,¹ published after extensive public commentary. WG9 has also published other white papers,² and more are forthcoming.

WG9 publishes here this *Framework for Analysis of Standard-Essential Patent/FRAND Issues* to address issues specific to alleged standard-essential patents (SEPs) and to consider the effects of commitments made to license patents on fair, reasonable, and non-discriminatory (FRAND) terms in infringement suits. To characterize these SEP/FRAND issues as difficult and complicated would be an understatement. While perhaps not a “doomed undertaking”—as at least one judicial opinion has characterized the issue(s)—it has given rise to unique challenges in trying to reach consensus on a wide-range of issues, including the following:

- The general approach taken throughout this *Framework* has been to present the various positions that SEP-holders and that accused infringers may argue for key disputed issues. This approach has necessitated attempts to present positions in a balanced, neutral fashion with a similar level of detail provided to each position. The result may give rise to “false equivalency” issues. This has been unavoidable, as the intent of Sedona and WG9 in this publication is to present a framework for analysis, and not to weigh in substantively where the law is still developing on these complex issues.
- Identifying which non-federal court opinion sources to include and exclude in support of various positions presented throughout this Framework has been a source of controversy. Some question the extent to which whether government agencies should weigh in at all or whether agency statements should have any weight in a court of law. The WG9 Steering Committee’s viewpoint is that appropriate statements from the various government agencies that address SEP/FRAND issues should be included in this publication. We applied the general standard of whether a court would find a given source informative to its

¹ The Sedona Conference, *Commentary on Patent Reasonable Royalty Determinations* (Dec. 2016 Edition) [hereinafter, *WG9 Reasonable Royalty Determinations Commentary*] available at <https://thesedonaconference.org/publication/WG9%20Patent%20Damages%20and%20Remedies>].

² See The Sedona Conference, *Commentary on Case Management of Patent Damages and Remedies Issues: Proposed Model Local Rule for Damages Contentions* (June 2017 Edition), available at <https://thesedonaconference.org/publication/WG9%20Patent%20Damages%20and%20Remedies>; and The Sedona Conference, *Commentary on Case Management of Patent Damages and Remedies Issues: Section on Patent Damages Hearings* (May 2017 Public Comment Version), available at <https://thesedonaconference.org/publication/WG9%20Patent%20Damages%20and%20Remedies>.

analysis in an SEP/FRAND case and of sufficient weight to be included in a Sedona consensus, nonpartisan publication.

- Also challenging was how to address the few U.S. court decisions on SEP/FRAND issues without inadvertently putting too much weight on a particular decision given the still-developing state of this area of law. To date, there have been four bench trials determining a FRAND royalty and each district court did not fully accept the FRAND royalty methodology proposed by each party and used its own methodology that was different from the methodology used by any other district court. Each of those decisions are important to know about given the few cases in this area, but none alone provides definitive guidance on the issues.

The limited, and sometimes conflicting, case law that has been developed by judges struggling to address highly complicated areas of technology, economics, and the law in SEP/FRAND cases both heightened these challenges and highlights the need in the patent community for this publication, which is designed to help practitioners and the judiciary identify and put into the appropriate context the types of issues that frequently arise in SEP/FRAND disputes.

This WG9 *Framework* is the result of those efforts to date and includes, in addition to the categories of WG9 participants identified above, input from both in-house and outside counsel that have different views regarding SEPs and the FRAND commitment, economists, the judiciary, and various government agencies that address SEP/FRAND issues.

The editors would like to express their appreciation to the members of the drafting team for their valuable input and thoughtful commentary. This project required a significant time commitment by everyone and involved much discussion and compromise to prepare this publication. This was clearly a team effort.

As the Editor-in-Chief for this publication and as Chair of Working Group 9, I would like to personally thank the co-leads—David Long, Mark Selwyn, and Leah Waterland—as well as Jim Ko, for their time and dedication in helping prepare a document that will be of significant benefit to the judiciary and patent bar.

R. Eric Hutz
Chair, Working Group 9 Steering Committee

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I. Introduction

Technical industry groups often form voluntary organizations to develop and adopt technical standards that advance the state of the technology and allow compatibility among different products made by different manufacturers so that any of those standard-compliant products can work together. For example, an industry group may develop a standard protocol for wireless communication so that wireless signals transmitted by one standard-compliant device can be received and understood by other standard-compliant devices no matter who made them. This *Framework* refers to such industry groups as standard-setting organizations (SSO), a broad term applicable to a wide variety of organizations that set technical industry standards.

Some SSOs may concern seemingly arbitrary decisions for pure compatibility reasons, akin to deciding whether to drive on the left side or right side of the road: either will work equally well, but you must pick one for people to safely use the road.

In contrast, another category of SSOs creates technology and may spur technical innovations and patentable inventions along the way. These will be referred to here as standard-development organizations (SDOs). Standard-essential patent litigation typically involves this latter type of standards development, and as such SDOs are the focus of this publication.

SDOs often have policies concerning what its participants should do if they own intellectual property relevant to a standard that the SDO is developing. Such intellectual property rights (IPR) policies may require a participant to disclose to the SDO if they have a patent that might be “essential” for someone to implement the standard (also called a “standard-essential patent” or “SEP”).³ The patent owner is typically not be required to represent that the patents it are actually essential, and SDOs typically do not make an independent determination of whether any identified patents are actually essential to the standard.

IPR policies also may require the patent owner to let the SDO know if they are willing to license patents that are essential to the standard and, if so, under what terms. A common example is that a patent owner may commit to licensing its patents on fair, reasonable, and non-discriminatory (FRAND) terms if those patents are essential to implementing the standard.

Standard-essential patents, including those with FRAND commitments, have been around for decades in all types of industries, but recent years have seen an increase in litigation concerning such standard-essential patents. This paper explores the issues and distinct processes in the developing area of litigating standard-essential patent disputes in U.S. courts and the International Trade Commission (ITC).

³ SSO IPR policies may define what would make a patent *essential* under the standard at issue, which definition may differ from one SSO to another. The specific SSO IPR policy at issue should be considered in determining whether a patent is essential to that SSO’s standard.

II. The SDO Commitment

A. DIFFERENT TYPES OF SDO IPR POLICIES AND TERMS

Standard-development organizations (SDOs) generally maintain policies concerning the intellectual property rights (IPR) relevant to the standards. IPR policies are typically developed to (i) encourage participants to contribute their patented innovations to the standard, (ii) encourage the development of products that implement standards, and (iii) reduce the risk of antitrust concerns that may otherwise arise from collaboration among industry participants in the development of a standard.

SDO IPR policies vary. The “fair, reasonable and non-discriminatory” (FRAND) or “reasonable and non-discriminatory” (RAND) licensing commitments typically have some commonalities across SDO IPR policies. Nonetheless, when evaluating any particular SDO’s IPR policy, it is important to consider the specific text of the F/RAND (hereinafter FRAND) commitment and applicable IPR policy, because there may be significant differences from one policy to another as well. In addition, SDOs may revise their IPR policies from time to time; a different version of the IPR policy may be in effect depending on the particular date a FRAND commitment was made.

SDO policies may differ in a number of ways, including with respect to the following important policy issues: (1) the type of IPR licensing commitments and when they become applicable, (2) the patent disclosure commitments, (3) the treatment of non-members, (4) obligations of successors to patents with standard-setting commitments, and (5) reciprocity issues.

1. IPR licensing commitments

The SDO commitment may give rise to a variety of different types of obligations to license, usually defined by the SDO’s IPR policy. A common SDO approach is to require, or seek voluntary commitments from, participants to license their SEPs on FRAND terms. Other SDOs may require, or seek commitments from, participants to license on “FRAND-Zero” terms—meaning that the licenses would be granted on a royalty free, reciprocal basis. And other SDOs may not be based on FRAND at all, but may have IPR policies based on other types of licensing terms. And for some that do require FRAND, they may also provide additional detail and information about what FRAND commitment they seek, and how it should be interpreted in the context of their SDO’s standards. This *Framework* focuses primarily on FRAND-committed SEPs.

One issue that may arise is the timing of *when* the licensing commitment becomes applicable. For some SDOs, voluntary agreement to be a member in the SDO will include some form of licensing commitment for any standards developed during the term of the membership. For other SDOs, a member’s voluntary participation in a particular work stream includes a licensing commitment; that is, the member does not agree to a licensing commitment for *all* standards developed by the organization, but does agree to a licensing commitment for any standards that it assists in developing. A third approach is that members agree to make IPR “declarations” if and when they become aware that they own IPR that they reasonably believe is or may become essential to a particular standard. For such SDOs, the IPR owner may simultaneously identify the IPR it reasonably believes may be essential, and declare whether or not it will commit to license such IPR on the applicable SDO’s terms. If the IPR owner declines to make the required commitment, then the SDO may choose to revise the relevant portions of the standard to avoid the IPR. Although an

SDO may have a policy that it may consider revising a standard to avoid IPR absent a licensing commitment, in any given case, the SDO may or may not actually do so.

2. Patent declarations

In connection with the IPR commitment, SDOs often require that a patent owner provide notice to the SDO and other participants whenever it learns that it may own a patent that it reasonably believes might be or might become essential to a standard. The identification of particular patents helps the SDO and its participants understand who owns applicable IPR and whether to design around the IPR. This can assist participants in the standard-development process, as well as in subsequent licensing matters.

Some SDOs will accept a “blanket” licensing commitment, whereby the patent owner commits to license any patents that it owns that are, or may become, essential to the particular standard. While such commitments may not include specific identification of particular patents, the “blanket” commitment to license ensures that licenses to any patents owned by the patent owner will remain available. Such approaches can be particularly useful for SDO participants that do not have the resources to regularly review and analyze their patent assets as compared to the various SDOs with which their business teams are engaged.

3. Enforceability of standard-setting commitments by SDO members and non-members

While the issue of whether a standard-setting commitment constitutes a binding contract enforceable by SDO members or third parties depends on the language of the specific SDO IPR policy, courts that have considered this issue have generally held that the specific SDO IPR policies at issue in the matters before them constituted binding contracts, and that members of the SDO or third-party beneficiaries in the form of parties using the standard have standing to sue.⁴

Many SDOs choose to extend licensing rights to all third parties, not just to SDO members. But some SDOs—particularly smaller collaborations—may limit the licensing commitment to participants in the collaboration, or may create multiple “tiers” of rights, with preferential terms provided to certain types of participants.

4. Obligations of successors to patents with standard-setting commitments

Some SDOs have included provisions within their IPR policies that seek to ensure that licensing commitments will continue to bind subsequent transferees.⁵ Some SDOs address this as an issue of

⁴ See, e.g., *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872 (9th Cir. 2012); *Apple, Inc. v. Motorola Mobility, Inc.* 886 F. Supp. 2d 1061, 1083–84 (W.D. Wis. 2012); *Microsoft Corp. v. Motorola, Inc.*, 864 F. Supp. 2d 1023, 1031–33 (W.D. Wash. 2012).

⁵ For example, 6.1bis of the ETSI IPR Policy (“Transfer of Ownership of ESSENTIAL IPR”) reads: “FRAND licensing undertakings made pursuant to Clause 6 shall be interpreted as encumbrances that bind all successors-in-interest. Recognizing that this interpretation may not apply in all legal jurisdictions, any Declarant who has submitted a FRAND undertaking according to the POLICY who transfers ownership of ESSENTIAL IPR that is subject to such undertaking shall include appropriate provisions in the relevant transfer documents to ensure that the undertaking is binding on the transferee and that the

“circumvention” of the licensing commitment, and restrict transfers with the intent of circumventing such obligations. Other SDOs seek more specific commitments by patent owners, such as a commitment to include an agreement to abide by the applicable licensing commitment as part of the contractual patent transfer documents. Some SDOs encourage the treatment of the licensing commitment as an encumbrance on the patent, applicable to the transferee regardless of whether the patent owner has included such express contractual provisions. And some SDOs do not address the issue at all.

5. Reciprocity and defensive suspension

Some SDO IPR policies expressly contemplate that patent owners may refuse to license to prospective licensees who refuse to reciprocate with a cross-license, to the extent as addressed by the IPR policy. Relatedly, SDO IPR policies may include terms addressing “defensive suspension” as to existing licensees, whereby a patent owner may suspend a previously-granted license in the event that the licensee sues the patent owner based on infringement of the licensee’s own patents.

For SDO IPR policies that permit these express terms, issues of the *scope* of reciprocity may or may not be addressed. That is, some IPR policies may state simply that reciprocity is required, but not provide further clarity as to whether such reciprocity must extend to only SEPs for the relevant standard, to all SEPs relevant to the SDO, or even to non-SEPs. Other SDO IPR policies expressly provide that the scope of reciprocity must be limited to the standard at issue between the parties, or do not address reciprocity at all.

B. COMMITMENT TO DISCLOSE RELEVANT IPR

Problems may arise if a patent holder has committed to timely disclose patents to an SDO, but knowingly or in bad faith fails to do so, and later asserts one or more undisclosed patents.

In evaluating what disclosure commitment an SDO participant undertook with the SDO, the Federal Circuit has considered both the express language of the applicable IPR policy and how, in practice, the SDO members treated the language.⁶ Even if the written policy does not impose “a direct duty on members expressly requiring disclosure of IPR information,” courts may nonetheless treat the language as imposing a disclosure duty where consistent with the treatment accorded to it by SDO members.⁷ “The existence of a disclosure duty is a legal question with factual underpinnings.”⁸

transferee will similarly include appropriate provisions in the event of future transfers with the goal of binding all successors-in-interest. The undertaking shall be interpreted as binding on successors-in-interest regardless of whether such provisions are included in the relevant transfer documents.”

⁶ See *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081, 1096–98 (Fed. Cir. 2003).

⁷ *Id.* (treating SDO IPR policy as imposing a disclosure duty notwithstanding that it contained no express disclosure duty, because members treated policy as imposing such).

⁸ *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1012 (Fed. Cir. 2008).

If a disclosure duty is found to exist, the court will turn to determining its scope.⁹ In determining the scope of such a duty, the Federal Circuit has looked to the express language of the policy and, to the extent the written language is ambiguous, the expectations of SDO participants.¹⁰ While the Federal Circuit has cautioned against “after-the-fact morphing of a vague, loosely defined policy to capture actions not within the actual scope of that policy,” it has approved of a scope of disclosure requiring SDO participants to disclose patents and other IPR that “reasonably might be necessary” to a standard.¹¹

The Federal Circuit has analyzed a breach of a duty of disclosure under various legal theories. For example, the Federal Circuit has found the equitable defense of implied waiver applicable in the SDO context where there was “intentional nondisclosure in the face of a duty to speak.”¹² “[A] duty to speak can arise from a group relationship in which the working policy of disclosure of related intellectual property rights (‘IPR’) is treated by the group as a whole as imposing an obligation to disclose information in order to support and advance the purposes of the group.”¹³

The Federal Circuit has also recognized that equitable estoppel may be a defense for a patent holder’s breach of its patent disclosure commitments to an SDO.¹⁴ “To support a finding of equitable estoppel, the accused must show that [t]he patentee, through misleading conduct, led the alleged infringer to reasonably infer that the patentee does not intend to enforce its patent against the alleged infringer.”¹⁵ Conduct, in this circumstance, “may include specific statements, action, inaction, or silence where there was an obligation to speak.”¹⁶ Other potentially applicable legal theories for a breach of a duty of disclosure may include implied license and laches.

The Federal Circuit has determined that a “district court may in appropriate circumstances order patents unenforceable as a result of silence in the face of an SDO disclosure duty, as long as the scope of the district court’s unenforceability remedy is properly limited in relation to the underlying breach.”¹⁷ District courts generally have considerable discretion to fashion an unenforceability remedy “reflective of the offending conduct.”¹⁸

⁹ *Id.* at 1017.

¹⁰ *See, e.g., Rambus*, 318 F.3d at 1098–99.

¹¹ *See, e.g., Rambus*, 318 F.3d at 1102 n.10; *Qualcomm*, 548 F.3d at 1022.

¹² *See Qualcomm*, 548 F.3d at 1021.

¹³ *Id.*

¹⁴ *Id.* at 1022–24.

¹⁵ *Hynix Semiconductor Inc. v. Rambus Inc.*, 645 F.3d 1336, 1348 (Fed. Cir. 2011) (quoting *A.C. Aukerman Co. v. R.I. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc)).

¹⁶ *Id.*

¹⁷ *Qualcomm*, 548 F.3d at 1026.

¹⁸ *Id.*

C. COMMITMENT TO LICENSE IPR

Generally, a patent owner possesses “the right to exclude others from making, using, offering for sale, or selling the invention,”¹⁹ and is under no obligation to license its patent. An obligation to license its patent can arise, however, if the patentee voluntarily makes a licensing commitment to an SDO, such as undertaking commitment to license on FRAND or RAND terms and conditions.

1. How the commitment arises

In some instances, an essential patent owner’s agreement to participate in an SDO may include an express agreement to make its essential patents available on FRAND or other licensing terms. In some U.S. cases, actual or potential standard-implementers have been treated as third-party beneficiaries of the contract, and they may possess legally enforceable rights (e.g., the right to seek enforcement of the patent owner’s FRAND commitments).²⁰

2. Duties associated with the commitment

Generally, the meaning of the patent owner’s licensing commitment should be found by applying the traditional law of contract interpretation to the specific licensing commitment made by the patent owner. Thus, the inquiry requires examining the language of the governing commitments, the intent of the parties, and the other relevant facts and circumstances.²¹ For most SDOs, the relevant documents include at least the patent owner’s licensing commitment and the SDO’s IPR policy. The patent owner’s licensing commitment—often called a declaration—typically is the operative agreement, but the licensing commitment uses terminology from the IPR policy (e.g., “fair, reasonable, and nondiscriminatory”) and, therefore, may be construed with reference to the IPR policy.

Depending on the particular content of the contract documents (i.e., the patent owner’s licensing commitment and the IPR policy) and the particular facts of the case, other issues may arise in a dispute concerning the obligation to license a patent. For example, a standard implementer might argue that a particular commitment creates an express or implied license;²² that the patent owner is

¹⁹ 35 U.S.C. § 154(a)(1) (2013).

²⁰ *See, e.g.,* Microsoft Corp. v. Motorola, Inc., 854 F. Supp. 2d 993, 999 (W.D. Wash. 2012) (“Microsoft, as a member of both the IEEE and the ITU, is a third-party beneficiary of Motorola’s commitments to the IEEE and ITU.”).

²¹ *See infra*, Sect. IV.D. (Injunctive Relief—eBay Factor Four) discussion about the public interest.

²² *See, e.g.,* De Forest Radio Telephone & Telegraph Co. v. United States, 273 U.S. 236, 241 (1927) (“Any language used by the owner of the patent or any conduct on his part exhibited to another, from which that other may properly infer that the owner consents to his use of the patent in making or using it, or selling it, upon which the other acts, constitutes a license, and a defense to an action for a tort.”); *but cf. In re* Innovatio IP Ventures, LLC Patent Litig., 921 F. Supp. 2d 903, 915 (N.D. Ill. 2013) (“The existence of an obligation to license a patent on RAND terms, without more, is not an actual express license providing a defense to infringement.”). “The doctrines of legal estoppel and equitable estoppel have been applied by courts to imply a license.” *Spindelfabrik Suessen-Schurr, Stahlecker & Grill GmbH v. Schubert & Salzer Maschinenfabrik Aktiengesellschaft*, 829 F.2d 1075, 1080 (Fed. Cir. 1987).

equitably estopped from asserting its patent;²³ that the patent owner waived its patent rights, expressly or impliedly; or that the patent owner's conduct runs in contravention of the competition laws.²⁴ The merit of each of these arguments, however, depends on the applicable facts.

Some litigants may argue that it is a competition law violation to fail to abide by a commitment to disclose relevant patents to an SDO or to license SEPs on FRAND or other licensing terms; others, however, may argue that mere failure to disclose or breach of a licensing commitment alone does not give rise to a competition law violation.²⁵

3. Available remedies for breach of FRAND commitment

If an essential patent owner is held to have breached its commitment to license its SEP on FRAND terms, then a court may order any available remedies, such as damages or specific performance (e.g., that the essential patent owner offer to license its SEP to the standard implementer on FRAND terms). The court may be called upon to determine whether a given offer by the patent owner or counter-offer by the prospective licensee is FRAND. If the essential patent owner sues for patent infringement and seeks injunctive relief, the standard implementer may argue that the patent owner should be enjoined from such relief as a violation of the FRAND commitment; may assert as a

²³ *Aspex Eyewear Inc. v. Clariti Eyewear, Inc.*, 605 F.3d 1305, 1310 (Fed. Cir. 2010) (setting forth the general equitable estoppel standard); *Hynix Semiconductor Inc. V. Rambus, Inc.*, 645 F. 3d 1336, 1348 (Fed. Cir. 2011).

²⁴ “A defense of waiver requires a showing of ‘intentional relinquishment or abandonment of a known right.’” *Barnes & Noble, Inc. v. LSI Corp.*, 849 F. Supp. 2d 925, 941 (N.D. Cal. 2012) (quoting *United States v. Perez*, 116 F.3d 840, 845 (9th Cir. 1997)); *Hynix Semiconductor*, 645 F.3d at 1348.

²⁵ *See Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007); *but see Saint Lawrence Communications LLC v. Motorola Mobility LLC*, Case No. 1:15-CV-351, Dkt. No. 135, at 13-15 (E.D. Tex. Feb. 15, 2018) (*Broadcom* and other cited cases do not “stand for the proposition that a breach of FRAND obligations constitutes patent misuse” and “[w]hile a breach of FRAND obligations may be relevant to this inquiry, a breach of FRAND is not determinative of patent misuse.”). In addition, the Federal Trade Commission has brought three enforcement actions against firms for the failure to disclose information regarding patent rights during the standard-setting process. *See* Complaint, *In re Dell Computer Corporation*, F.T.C. Docket No. C-3658, 121 F.T.C. 616 (May 20, 1996); Complaint, *In re Union Oil Company of California*, F.T.C. Docket No. 9305 (Aug. 2, 2005); *Rambus, Inc. v. F.T.C.*, 522 F.3d 456 (D.C. Cir. 2008). Likewise, the Commission has brought three enforcement actions against firms for failing to abide by licensing commitments made during the standard-setting process, including the FRAND commitment. *See* Complaint, *In re Negotiated Data Solutions, LLC*, F.T.C. Docket No. C-4234 (Sept. 23, 2008); Complaint, *In re Robert Bosch GmbH*, F.T.C. Docket No. C-4377 (November 21, 2012); Complaint, *In re Motorola Mobility, LLC and Google, Inc.*, F.T.C. Docket No. C-4410 (July 23, 2013). However, it is also true that the Decisions by the Commission to institute have also elicited dissents, reflecting that at least some members of the Commission do not believe there is legal basis for the argument that a competition law violation can occur solely from breaching a commitment to license an SEP on FRAND terms. *See, e.g.*, *In the Matter of Robert Bosch GmbH*, F.T.C. Docket No. C-4377 (November 21, 2012) (Dissenting Statement of Commissioner Maureen Ohlhausen); *see also* November 10, 2017 Comments of Assistant Attorney General Makan Delrahim at the USC Gould School of Law's Center for Transnational Law and Business Conference, available at <https://www.justice.gov/opa/speech/assistant-attorney-general-makan-delrahim-delivers-remarks-usc-gould-school-laws-center>.

defense to injunctive relief that the essential patent owner breached its FRAND commitment by failing to offer a license on FRAND terms and is therefore not entitled to an injunction;²⁶ may argue that the seeking of an injunction itself is a breach of contract given the FRAND commitment made by the essential patent owner²⁷; or may argue that the seeking of an injunction itself forms part of a competition law violation (e.g., of the Sherman Act).²⁸

In contrast, the patent owner may argue that it has a First Amendment right to petition the court to grant injunctive relief,²⁹ which relief a court has discretion to grant upon considering defenses raised by the accused infringer, such as a FRAND defense.³⁰ Further, a patent owner may argue that a prospective licensee is an unwilling licensee or otherwise has not satisfied its obligations in order to benefit from the patent owner's FRAND commitment. The patent owner may argue that the prospective licensee should be enjoined from using the patented technology, that the prospective licensee pay some royalty during the course of the litigation, that any license to an unwilling licensee does not need to be limited to FRAND terms, or that the prospective licensee pay enhanced damages or royalties for willful infringement or such other relief that the court deems appropriate in the circumstances.³¹

²⁶ See, e.g., *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1331–32 (Fed. Cir. 2014), *overruled on other grounds by* *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015); see also *Microsoft Corp. v. Motorola, Inc.*, 696 F.3d 872, 889 (9th Cir. 2012) (affirming the district court's grant of a foreign anti-suit injunction to prevent Motorola from enforcing a patent injunction that it obtained against Microsoft in Germany).

²⁷ *Apple Inc. v. Samsung Electronics Co.*, No. 11-cv-1846, 2012 WL 1672493 (N.D. Cal. May 14, 2012); *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024 (9th Cir. 2015).

²⁸ *Huawei Technologies Co. v. T-Mobile US Inc.*, No. 2:16-cv-00052, -00055, -00056, -00057, 2017 WL 3928836 (E.D. Tex. Aug. 21, 2017); *Microsoft Mobile Inc. v. Interdigital, Inc.*, No. 15-723-RGA, 2016 WL 1464545 (D. Del. Apr. 13, 2016).

²⁹ See, e.g., *Apple, Inc. v. Motorola Mobility, Inc.*, 886 F. Supp. 2d 1061, 1076 (W.D. Wis. 2012) (“Because Motorola’s enforcement of its patents is privileged conduct protected by the First Amendment, the Noerr-Pennington doctrine applies.”); *In re Innovatio IP Ventures, LLC Patent Litig.*, 921 F. Supp. 2d 903, 922 (N.D. Ill. 2013) (“Accordingly, Innovatio’s campaign is protected petitioning activity under the First Amendment and Noerr-Pennington.”); *TCL Communications Tech. Holdings, Ltd. v. Telefonaktienbolaget LM Ericsson et al.*, Case No. SACV 14-0341, 2016 WL 7049253, at *2–*4 (C.D. Cal. Aug. 9, 2016) (dismissing competition law claims under Noerr-Pennington and because “business uncertainty” from SEP lawsuit was not a cognizable “economic injury”).

³⁰ See *Apple Inc. v. Motorola Inc.*, 757 F.3d 1286, 1331–32 (Fed. Cir. 2014) (no “per se rule that injunctions are unavailable for SEPs”; court should consider FRAND and SEP issues under the general *eBay* framework in exercising discretion whether to enter injunctive relief).

³¹ See *Core Wireless Licensing S.a.r.l. v. LG Electronics, Inc. et al.*, Case No. 2:14-cv-912, Final Judgment (E.D. Tex. Nov. 1, 2016) (enhancing damages for willful infringement due to defendant’s license negotiation conduct).

D. EXAMPLES OF FRAND LICENSING COMMITMENTS

Below we consider the IPR licensing policies of two SDOs: the European Telecommunications Standards Institute (ETSI), and the Institute of Electrical and Electronics Engineers (IEEE) (both its IPR policy effective 2007 and its IPR policy effective 2015). We do so not because the policies of these SDOs are representative of the IPR policies of SDOs generally, but rather because they help illuminate some approaches that have been taken by SDOs.

1. European Telecommunications Standards Institute (ETSI)

ETSI develops and promulgates standards for information and communications technologies, including mobile, radio, broadcast, and Internet technologies. Since its founding in 1988, ETSI has published thousands of standards.

ETSI describes the significance of FRAND licensing within its IPR policy³² as follows: “The ETSI IPR Policy seeks to reduce the risk that our standards-making efforts might be wasted if essential IPRs are unavailable under Fair, Reasonable and Non-Discriminatory (FRAND) terms and conditions. At the same time, we recognize that IPR holders should be fairly and adequately rewarded for the use of their IPRs in the implementation of our standards. The objective of the ETSI IPR Policy is to balance the rights and interests of IPR holders and the need for implementers to get access to the technology defined in our standards under FRAND terms and conditions.”

The ETSI IPR Policy does not require participants to commit to licensing patents on FRAND terms, but it does require participants to state whether or not they are willing to do so. The ETSI IPR Policy sets forth the following FRAND commitment for its members:

an irrevocable undertaking in writing that it is prepared to grant irrevocable licences on fair, reasonable and non-discriminatory (“FRAND”) terms and conditions under such IPR to at least the following extent:

- MANUFACTURE, including the right to make or have made customized components and sub-systems to the licensee’s own design for use in MANUFACTURE;
- sell, lease, or otherwise dispose of EQUIPMENT so MANUFACTURED;
- repair, use, or operate EQUIPMENT; and
- use METHODS.

The above undertaking may be made subject to the condition that those who seek licences agree to reciprocate.

³² For current version of the ETSI IPR Policy, *see* ETSI RULES OF PROCEDURE (Nov. 29, 2017), *available at* <http://www.etsi.org/images/files/IPR/etsi-ipr-policy.pdf>.

The ETSI IPR Policy does not contain explicit guidance on what constitutes FRAND terms. The ETSI Guide on Intellectual Property Rights states: “Specific licensing terms and negotiations are commercial issues between the companies and shall not be addressed within ETSI.”³³

ETSI has an IPR policy as well as a Guide on Intellectual Property Rights. Below is an excerpt from the guide that includes the IPR policy’s definition of the term “ESSENTIAL”:

1.5 “Essential” IPRs

Clause 15.6 of the ETSI IPR Policy gives the following definition of essentiality:

“15.6 ESSENTIAL as applied to IPR means that it is not possible on technical (but not commercial) grounds, taking into account normal technical practice and the state of the art generally available at the time of standardization, to make, sell, lease, otherwise dispose of, repair, use or operate EQUIPMENT or METHODS which comply with a STANDARD without infringing that IPR. For the avoidance of doubt in exceptional cases where a STANDARD can only be implemented by technical solutions, all of which are infringements of IPRs, all such IPRs shall be considered ESSENTIAL.”

In simpler terms, an “essential IPR” is an IPR which has been included within a standard and where it would be impossible to implement the standard without making use of this IPR. The only way to avoid the violation of this IPR in respect of the implementation of the standard is therefore to request a license from the owner.

2. Institute of Electrical and Electronics Engineers (IEEE)

The IEEE is the world’s largest association of technical professionals, and has published thousands of standards in a wide range of industries, including telecommunications, information technology, power, and networking.

The IEEE has maintained an IPR policy that has undergone various updates over time. Summarized below are portions of the IPR policies in effect as of 2007 and 2015.³⁴ There may be portions of these policies not summarized below that are pertinent to a particular dispute.

a. 2007 Update

In 2007, the IEEE’s 2007 IPR policy relied on the submission of a “Letter of Assurance” (LOA) from holders of a “potential Essential Patent Claim.” The LOA may indicate that the patent owner commits to license its patents on specific terms or it may indicate that the patent owner would not commit as to whether or on what terms the patent may be licensed. The policy indicates that, if a licensing commitment was given, the licensing assurance had to be either:

³³ ETSI GUIDE ON INTELLECTUAL PROPERTY RIGHTS (IPRS) § 4.1 (Sept. 19, 2013), *available at* <http://www.etsi.org/images/files/IPR/etsi-guide-on-ipr.pdf>.

³⁴ For current version of the IEEE IPR Policy, *see* IEEE-SA STANDARD BOARD BYLAWS (Dec. 2017), *available at* http://standards.ieee.org/develop/policies/bylaws/sb_bylaws.pdf (Sect. 6—Patents).

- a) A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, using selling, offering to sell, importing, distributing, or implementing a compliant implementation of the standard; or
- b) A statement that a license for a compliant implementation of the standard will be made available to an unrestricted number of applicants on a worldwide basis without compensation or under reasonable rates, with reasonable terms and conditions that are demonstrably free of any unfair discrimination.

The 2007 IPR policy defined “Essential Patent Claims” to mean any patent claim “the use of which was necessary to create a compliant implementation of either mandatory or optional portions of the normative clauses of the [Proposed] IEEE Standard when, at the time of the [Proposed] IEEE Standard’s approval, there was no commercially and technically feasible non-infringing alternative.” The policy also stated that an essential patent claim did “not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.” “Patent Claim,” in turn, meant “one or more claims in issued patent(s) or pending patent application(s).”

b. 2015 Update

In 2015, the IEEE updated its IPR policy.³⁵ The IEEE stated that its updated policy was intended to clarify (though there is dispute within the industry over whether this was a clarification or amendment) the scope of commitments from parties holding patent claims essential to IEEE standards regarding (1) the availability of “Prohibitive Orders”; (2) the meaning of “Reasonable Rate”; (3) the production levels (e.g., manufactures of components or sub-assemblies, or end use products) to which IEEE commitments apply through the definition of Compliant Implementation; and (4) permissible demands for reciprocal licenses.

The IEEE’s 2015 IPR policy relies on the submission of a letter of assurance (LOA) from holders of a “potential Essential Patent Claim.” The LOA may indicate that the patent owner commits to license its patents on specific terms or it may indicate that the patent owner would not commit as to whether or on what terms the patent may be licensed. If a licensing commitment is given, the licensing assurance shall be either:

- a) A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, having made, using, selling, offering to sell, or importing any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard; or,
- b) A statement that the Submitter will make available a license for Essential Patent Claims to an unrestricted number of Applicants on a worldwide basis without compensation or under Reasonable Rates, with other reasonable terms and conditions

³⁵ The 2015 Update was the subject of considerable debate among various technology companies prior to its approval by IEEE members. Certain opponents of the update continued to express their disagreement after the new language was approved.

that are demonstrably free of any unfair discrimination to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard. An Accepted LOA that contains such a statement signifies that reasonable terms and conditions, including without compensation or under Reasonable Rates, are sufficient compensation for a license to use those Essential Patent Claims and precludes seeking, or seeking to enforce, a Prohibitive Order except as provided in this policy.

Among other differences, the 2007 IEEE LOA language did not include the last sentence in subparagraph (b), or use the defined terms “Compliant Implementation,” “Prohibitive Order,” or “Applicant” introduced in the 2015 update. A redline of the revisions in the updated policy is shown below:

~~A Letter of Assurance~~The licensing assurance shall be either:

- a)- ~~A general disclaimer to the effect that the Submitter without conditions will not enforce any present or future Essential Patent Claims against any person or entity making, having made, using, selling, offering to sell, or importing, distributing, or implementing a compliant implementation of any Compliant Implementation that practices the standard~~Essential Patent Claims for use in conforming with the IEEE Standard; or,
- b)- ~~A statement that a license for a compliant implementation of the standard the Submitter will be made~~make available a license for Essential Patent Claims to an unrestricted number of applicants~~Applicants~~ on a worldwide basis without compensation or under reasonable rates~~Reasonable Rates, with other~~reasonable terms and conditions that are demonstrably free of any unfair discrimination~~– to make, have made, use, sell, offer to sell, or import any Compliant Implementation that practices the Essential Patent Claims for use in conforming with the IEEE Standard. An Accepted LOA that contains such a statement signifies that reasonable terms and conditions, including without compensation or under Reasonable Rates, are sufficient compensation for a license to use those Essential Patent Claims and precludes seeking, or seeking to enforce, a Prohibitive Order except as provided in this policy.~~

The 2015 IPR policy defined “Essential Patent Claims” to mean any patent claim “the practice of which was necessary to implement either a mandatory or optional portion of a normative clause of the IEEE Standard when, at the time of the IEEE Standard’s approval, there was no commercially and technically feasible non-infringing alternative implementation method for such mandatory or optional portion of the normative clause.” The policy also states that an essential patent claim “does not include any Patent Claim that was essential only for Enabling Technology or any claim other than that set forth above even if contained in the same patent as the Essential Patent Claim.” “Patent Claim,” in turn, means “one or more claims in issued patent(s) or pending patent application(s).”

The IEEE’s 2015 policy sets forth specific guidance for licensing on reasonable and non-discriminatory (RAND) terms, including the following:

- **Reasonable licensing rate:** The IEEE policy contains a definition for what constitutes a “Reasonable Rate” for a license to an “Essential Patent Claim.” A “Reasonable Rate” means “appropriate compensation to the patent holder” but

“exclud[es] the value, if any resulting from the inclusion of that Essential Patent Claim’s technology in the IEEE Standard.” The 2007 IEEE policy did not include an express definition of “Reasonable Rate.”

The IEEE policy also lists three additional factors that should be considered in (but need not be limited to) the determination of a “Reasonable Rate”; these factors were not listed in the 2007 IEEE policy:

- “The value that the functionality of the claimed invention or inventive feature within the Essential Patent Claim contributes to the value of the relevant functionality of the smallest saleable Compliant Implementation that practices the Essential Patent Claim.”
 - “The value that the Essential Patent Claim contributes to the smallest saleable Compliant Implementation that practices that claim, in light of the value contributed by all Essential Patent Claims for the same IEEE Standard practiced in that Compliant Implementation.”
 - “Existing licenses covering use of the Essential Patent Claim, where such licenses were not obtained under the explicit or implicit threat of a Prohibitive Order, and where the circumstances and resulting licenses are otherwise sufficiently comparable to the circumstances of the contemplated license.”
- ***Non-discrimination:*** The licensing assurance requires patent holders to license their essential patent claims “for any Compliant Implementation.” “Compliant Implementation” means “any product (e.g., component, sub-assembly, or end-product) or service that conforms to any mandatory or optional portion of a normative clause of an IEEE Standard.” The 2007 IEEE policy did not include an express definition of “Compliant Implementation.”
 - ***Limitations on availability of injunctions:*** The submitter of a licensing assurance is prohibited from seeking, or seeking to enforce, a “Prohibitive Order” (e.g., an injunction or exclusion order), except in the circumstance where “the implementer fails to participate in, or to comply with the outcome of, an adjudication, including an affirming first-level appellate review, if sought by any party within applicable deadlines, in that jurisdiction by one or more courts that have the authority to: determine Reasonable Rates and other reasonable terms and conditions; adjudicate patent validity, enforceability, essentiality, and infringement; award monetary damages; and resolve any defenses and counterclaims.” The 2007 IEEE policy did not include an express definition of “Prohibitive Order.”
 - ***Reciprocity:*** The submitter of a licensing assurance may condition its willingness to license on reciprocal licensing, that is, “the Applicant’s agreement to grant a license to the Submitter with Reasonable Rates and other reasonable licensing terms and conditions to the Applicant’s Essential Patent Claims, if any, for the referenced IEEE Standard, including any amendments, corrigenda,

editions, and revisions.” The 2007 IEEE policy did not include an express definition of “Reciprocal Licensing.”

III. FRAND Analysis

A. GENERAL OVERVIEW

This section addresses methodologies that U.S. courts have considered so far on what constitutes a fair, reasonable, and non-discriminatory (FRAND) royalty for SEPs in U.S. litigation. General law on how to determine a reasonable royalty for patents applies to determining a FRAND royalty for SEPs, but will be tailored to the specific circumstances presented by standardization and the FRAND commitment at issue. For example, the general patent law principle of apportionment requires determining a reasonable royalty for SEPs premised on the value of the patented feature, not any value added by the standard's adoption of the patented technology.³⁶ Applying that general patent law apportionment principle to SEPs means that, “[w]hen dealing with SEPs . . . the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology.”³⁷

This section therefore considers general patent law damages principles in the context of SEPs that the patent owner has committed to license on FRAND terms. Because not all FRAND commitments are the same, it is important when applying the principles presented herein to do so based on the specific FRAND commitment at issue.

First, we consider the general patent law *Georgia-Pacific* reasonable royalty methodology and consider how it should be applied in the context of a FRAND-committed SEP. For example, a traditional *Georgia-Pacific* factor would allow a higher royalty if the licensee competes with the patent owner; but that upward factor may not apply where a patent owner has committed to license its SEP on non-discriminatory terms.

Second, we consider separately the *Georgia-Pacific* inquiry on available non-infringing alternatives and how it may differ in the context of a FRAND-committed patent. Generally, non-infringing alternatives that existed at the time infringement first began may lower the reasonable royalty. But that time frame or available alternatives may be different in the case of a FRAND-committed SEP. For example, relevant non-infringing alternatives might be limited to those available or actually considered by the standard-setting body at the time that the standard was adopted.

Third, we consider separately what would constitute a comparable real-world license to the extent it could be reliably adjusted to account for the royalty expected based on the FRAND commitment at issue.

Fourth, we consider the entire market value rule and the smallest salable patent-practicing unit (SSPPU) doctrine as applied to FRAND-committed SEPs.

³⁶ *Garretson v. Clark*, 111 U.S. 120, 121 (1884); *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (listing factor 13 on portion of profit “that should be credited to the invention as distinguished from non-patented elements”).

³⁷ *Ericsson, Inc. v. D-Link Systems Inc.*, 773 F.3d 1201, 1232 (Fed. Cir. 2014).

Fifth, we consider approaches other than the *Georgia-Pacific* methodology for determining a reasonable royalty for a FRAND-committed patent.

Sixth, we consider what impact the non-discrimination component of a FRAND commitment has on determining a FRAND royalty.

Seventh, we consider several other discrete issues that may arise when litigating a reasonable royalty for a FRAND-committed SEP.

It is important to understand the limited scope of this section. These limitations include:

- This section concerns determining a FRAND royalty in U.S. litigation before a judge or jury, which has substantive and procedural issues that may not necessarily translate directly into parties determining a FRAND royalty in bilateral negotiations outside of litigation or in non-U.S. litigation.
- This section largely concerns litigation to determine only a monetary FRAND royalty without determining non-monetary terms that may be a component of real-world FRAND licensing. At least one court has further determined other material terms for an adjudicated FRAND license.³⁸

This section focuses generally on litigation to determine a FRAND royalty for past infringement under 35 U.S.C. § 284 in a patent infringement action. There may be other contexts in which a FRAND royalty may be litigated; this section may provide some guidance on those contexts but no position is taken here. These other contexts include the following:

- FRAND royalty for future use of the invention by an adjudged infringer. Some may argue that future royalties may be higher than the royalty for past infringement (such as where infringement or validity of the patent have been determined). Others may disagree and argue that future royalties should be the same as past royalties (such as arguing higher future royalties would be discriminatory as to other licensees or would exceed FRAND rates).
- FRAND royalty determined as part of a breach of contract action, which some may argue may be lower than a reasonable royalty for past infringement (where liability is presumed to exist) given the uncertainty as to whether a patent is valid, infringed or essential to the standard.

Another issue that this section does not address is whether and to what extent a court may determine the FRAND royalty for a portfolio of SEPs. Some courts have been willing to adjudicate disputes concerning what would constitute a FRAND royalty for a patent portfolio where the

³⁸ See *TCL Comm'n Tech. Holdings Ltd. v. Telefonaktienbolaget LM Ericsson*, Case No. SACV 14-0341, Dkt. No. 1802 (C.D. Cal. Dec. 21, 2017).

determination was related to resolving a breach of contract claim³⁹ or where the determination was relevant to patent claims and with the parties' agreement.⁴⁰ But some courts have been unwilling to determine a binding FRAND royalty for a portfolio of patents outside of an infringement action without the consent of both parties.⁴¹ The Working Group has decided not to address litigating a FRAND royalty for a portfolio of SEPs as we await further case law development.

B. GEORGIA-PACIFIC FACTORS IN THE CONTEXT OF FRAND

Title 35, section 284, of the U.S. Code states that a patent claimant that proves infringement shall be awarded “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer.” Different methodologies may be used to determine a reasonable royalty. One common method—but not the only one—for determining what constitutes a “reasonable royalty” for a given patent is guided by a number of considerations drawn from *Georgia-Pacific*,⁴² which attempts “to ascertain the royalty upon which the parties would have agreed had they successfully negotiated an agreement just before infringement began.”⁴³ This methodology is often termed a “hypothetical negotiation” and the litigated reasonable royalty rate is the result of such a hypothetically negotiated license.

The *Georgia-Pacific* factors considered to determine the reasonable royalty rate for the hypothetically negotiated license are as provided below:

- (1) The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.
- (2) The rates paid by the licensee for the use of other patents comparable to the patent in suit.
- (3) The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.

³⁹ *E.g.*, *Microsoft Corp. v. Motorola, Inc.*, Case No. C10-1823, 2013 WL 2111217 (W.D. Was. Apr. 25, 2013); *TCL Communication Technology Holdings, Ltd. v. Telefonaktienbolaget LM Ericsson, et al.*, Case No. SACV 14-0341, Dkt. No. 1802 (C.D. Cal. Dec. 21, 2017).

⁴⁰ *E.g.*, *In re Innovatio IP Ventures, LLC Patent Litig.*, Case No. 11-C-9308, 2013 WL 5593609 (N.D. Ill. Oct. 3, 2013).

⁴¹ *See, e.g.*, *Ericsson, Inc. v. D-Link Sys.*, No. 6:10-cv-473, 2013 WL 4046225, at *21 (E.D. Tex. Aug. 6, 2013) (declining request to determine a worldwide RAND rate because “defendants’ refus[al] to make any assurance they would accept such an offer” meant that any ruling “would have amounted to nothing more than an advisory opinion”), *aff’d in part, rev’d in part*, 773 F.3d 1201 (Fed. Cir. 2014); *Apple Inc. v. Telefonaktiebolaget LM Ericsson, Inc.*, No. 15-cv-00154, 2015 WL 1802467, at *2 (N.D. Cal. Apr. 20, 2015) (“there exists no legal basis upon which Apple may be compelled to take a license for Ericsson’s patents on a portfolio-wide basis”); *InterDigital Communications, Inc. v. ZTE Corp.*, No. 13-cv-00009, 2014 WL 2206218, at *2 (D. Del. May 28, 2014) (declining to set FRAND terms where to do so “would have little utility and serve little to no useful purpose,” as it “would not lead directly to a patent license as multiple other license issues would still need to be negotiated, any one of which could become a sticking point”).

⁴² *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116 (S.D.N.Y. 1970).

⁴³ *Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1324 (Fed. Cir. 2009).

- (4) The licensor's established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- (5) The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.
- (6) The effect of selling the patented specialty in promoting sales of other products of the licensee; that existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.
- (7) The duration of the patent and the term of the license.
- (8) The established profitability of the product made under the patent; its commercial success; and its current popularity.
- (9) The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.
- (10) The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.
- (11) The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.
- (12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.
- (13) The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.
- (14) The opinion testimony of qualified experts.
- (15) The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement⁴⁴

Although the *Georgia-Pacific* analysis captures certain potentially important considerations for calculating a reasonable royalty, it is not a one-size-fits-all test.⁴⁵ Indeed, the Federal Circuit has declined to adopt categorical bright-line modifications to the *Georgia-Pacific* factors themselves in any case, including those involving SEPs subject to a FRAND commitment.⁴⁶ Rather, the *Georgia-Pacific* factors must be tailored, omitted, and modified as necessary in each particular case to account for the specific circumstances presented, which includes the specific FRAND or other standard-setting commitment at issue in the case.⁴⁷ “In a case involving RAND-encumbered patents, many of the

⁴⁴ See *Georgia-Pacific*, 318 F. Supp. at 1120.

⁴⁵ See e.g., *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201 (Fed. Cir. 2014).

⁴⁶ See *id.* at 1232–33.

⁴⁷ See *id.* at 1230–32; *Commonwealth Scientific & Industrial Research Organization (CSIRO) v. Cisco Systems, Inc.*, 809 F.3d 1295, 1305 (Fed. Cir. 2015).

Georgia-Pacific factors simply are not relevant; many are even contrary to RAND principles.”⁴⁸ Courts should consider the facts of record when instructing the jury, including the actual standard-setting commitment at issue in any given case.⁴⁹

Accordingly, the following discussion addresses each of the fifteen *Georgia-Pacific* factors in the context of a patent subject to a standard-setting commitment. Because not all FRAND commitments are the same, the discussion below is provided as general guidance. The specific FRAND commitment at issue should be considered to determine whether and to what extent a factor applies in a particular case.⁵⁰

- **Factor 1: The royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an established royalty.**

This factor concerns licenses that include the patents-in-suit. A key issue is whether and to what extent such licenses are “comparable” to the hypothetically negotiated license at issue in the litigation, as discussed in Factor 15 below.

Section III.D. below addresses comparable licenses in the FRAND context.

- **Factor 2: The rates paid by the licensee for the use of other patents comparable to the patent in suit.**

This factor concerns licenses that do not include the patents-in-suit, but a party asserts licenses comparable to the hypothetically negotiated license at issue in the litigation. Section III.D. below addresses comparable licenses in the FRAND context.

- **Factor 3: The nature and scope of the license, as exclusive or non-exclusive; or as restricted or non-restricted in terms of territory or with respect to whom the manufactured product may be sold.**

This factor concerns whether the hypothetically negotiated license would have broad or limited scope, such as a grant of an exclusive right to practice the licensed invention, a field of use, geographic area restriction, or other terms affecting its scope. A FRAND commitment, however, would preclude the patent owner from granting an exclusive license that allows only one entity to practice the invention.

- **Factor 4: The licensor’s established policy and marketing program to maintain his patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve the monopoly.**

⁴⁸ *Ericsson*, 773 F.3d at 1230.

⁴⁹ *Id.* at 1230–32.

⁵⁰ *Id.*

This factor concerns whether the patent owner has limited the practice of its invention to itself or only a select set of others under conditions that preserve the patent monopoly and prevent others from practicing the invention. A FRAND-commitment generally will prevent the patent owner from maintaining that type of monopoly.⁵¹ But some SDO IPR policies do allow FRAND-commitments with reciprocity or defensive suspension provisions that may allow the patent owner to either: (1) not license others, such as an entity that refuses to give a cross-license on its SEPs, or (2) suspend a license granted to others, such as an entity that sues the patent owner. Thus, the specific FRAND commitment must be considered in the context of the case presented, such as whether that commitment has reciprocity, defensive suspension, or other conditions relevant to the case.

- **Factor 5: The commercial relationship between the licensor and licensee, such as, whether they are competitors in the same territory in the same line of business; or whether they are inventor and promoter.**

Factor 5 concerns the commercial relationship between the parties, such as whether they are competitors, which would tend to increase the reasonable royalty in a typical patent case. However, the “non-discrimination” part of a FRAND commitment will preclude the patent owner from increasing the reasonable royalty because they are competitors.⁵²

- **Factor 6: The effect of selling the patented specialty in promoting sales of other products of the licensee; the existing value of the invention to the licensor as a generator of sales of his non-patented items; and the extent of such derivative or convoyed sales.**

Factor 6 concerns the patented technology’s contribution to increased sales or promotion of the licensor’s and licensee’s other products, which would tend to increase the reasonable royalty. In applying this factor to a FRAND-committed SEP, care should be taken to avoid including sales or promotional value for other products that are attributable solely to the fact of inclusion in the standard, rather than the value of the patented technology.

- **Factor 7: The duration of the patent and the term of the license.**

Factor 7 concerns the duration of the patent and the hypothetically negotiated license. One court found that the hypothetical license term would cover the life of a RAND-committed SEP.⁵³ But real-world licenses often have limited durations and the parties may present evidence that a different license term would have been agreed to during the hypothetical negotiation.

- **Factor 8: The established profitability of the product made under the patents; its commercial success; and its current popularity.**

⁵¹ *Id.* at 1230 (“Because of Ericsson’s RAND commitment, however, it cannot have that kind of policy for maintaining a patent monopoly.”).

⁵² *Id.* at 1231 (finding in that case factor 5 “irrelevant because Ericsson must offer licenses at a non-discriminatory rate”); *see infra*, Sect. III.G.

⁵³ *Microsoft Corp. v. Motorola Inc.*, Case No. C10-1823, 2013 WL 2111217 (W.D. Wash. Apr. 25, 2013).

Factor 8 includes consideration of the commercial success and popularity of the products that have the patented invention. In applying this factor in a case involving a FRAND-committed SEP, care must be taken to ensure that the commercial success or popularity considered is that which is attributable to the merits of the patented invention and not what is attributable to the technology being required by the standard.⁵⁴

- **Factor 9: The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.**

Factor 9 concerns the patented technology's advantages over older technology that was used to achieve similar results. In applying this factor to a FRAND-committed SEP, the parties should consider the extent to which the accused product uses the patented invention because it is an improvement over older technology versus its use because it is essential to the standard.⁵⁵ Parties can present evidence in the specific case to determine whether and to what extent this factor is relevant to the facts in that case.

Section III.C.1–2. below addresses arguments that parties may raise as to whether the time period to consider older technology should include when the standard was adopted as well as whether such alternative technology should be limited to what the standards body actually considered when adopting the standard. The law is not settled on these points.

- **Factor 10: The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.**

Factor 10 considers the commercial embodiment of the licensor, including, among other things, the accused infringing product's benefit from use of the invention. For a FRAND-committed SEP, care should be taken to apportion the benefit from use of the invention itself from benefits that arise merely because of standardization.⁵⁶

Section III.C.1–2. below discusses the relevant time period when considering benefits from the invention compared to alternatives.

- **Factor 11: The extent to which the infringer has made use of the invention; and any evidence probative of the value of that use.**

⁵⁴ See *Ericsson*, 773 F.3d at 1231 (“an invention’s ‘current popularity’ . . . is likely inflated because a standard requires the use of the technology”); see also *Commonwealth Scientific & Industrial Research Organization (CSIRO) v. Cisco Systems, Inc.*, 809 F.3d 1295, 1305 (Fed. Cir. 2015) (should consider “the standard’s role in causing commercial success”).

⁵⁵ *Ericsson*, 773 F.3d at 1231 (finding that factor 9 “is also skewed for SEPs because the technology is used because it is essential, not necessarily because it is an improvement over the prior art”).

⁵⁶ See also *id.* (finding in that case that factor 10 “is also irrelevant as the standard requires the use of the technology”).

Factor 11 is generally considered along with Factor 10 discussed above.

- **Factor 12: The portion of the profit or of the selling price that may be customary in the particular business or in comparable businesses to allow for the use of the invention or analogous inventions.**

This factor concerns the customary portion of profits allowed for use of the patented invention and may be considered when addressing comparable licenses, which is discussed in Section III.D. below.

- **Factor 13: The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.**

Factor 13 concerns apportioning value attributable to the claimed invention from other non-patented features of the product. The issue of apportionment of a royalty base or a royalty rate is addressed in The Sedona Conference *Commentary on Patent Reasonable Royalty Determinations*,⁵⁷ the application of these apportionment issues in the context of SEP/FRAND cases may be addressed in “Stage Two” of the current publication.

The fact that a patent is standard-essential will require additional apportionment analysis, regardless of whether that patent is subject to a standard-setting commitment. *Ericsson* makes clear that, “[a]s with all patents, the royalty rate for SEPs must be apportioned to the value of the patented invention.”⁵⁸ The Federal Circuit explained that:

When dealing with SEPs, there are two special apportionment issues that arise. First, the patented feature must be apportioned from all of the unpatented features reflected in the standard. Second, the patentee’s royalty must be premised on the value of the patented feature, not any value added by the standard’s adoption of the patented technology. These steps are necessary to ensure that the royalty award is based on the incremental value that the patented invention adds to the product, not any value added by the standardization of that technology.

Thus, “a royalty award for an SEP must be apportioned to the value of the patented invention (or at least to the approximate value thereof), not the value of the standard as a whole” and a “jury must be instructed accordingly.”⁵⁹ In determining a royalty, the infringer may argue that the factfinder should also consider the benefits the SEP owner has received (and will continue to receive) from the increased sales volumes due to standardization.

⁵⁷ *WG9 Reasonable Royalty Determinations Commentary*, *supra* note 1.

⁵⁸ *Ericsson*, 773 F.3d at 1232.

⁵⁹ *Id.* at 1233.

“[P]roof of damages” must be “carefully tied to the claimed invention itself.”⁶⁰ To be sure, that does not mean “that all SEPs make up only a small part of the technology in the standard.”⁶¹ Instead, “if a patentee can show that his invention makes up ‘the entire value of the’ standard, an apportionment instruction probably would not be appropriate.”⁶²

- **Factor 14: The opinion testimony of qualified experts.**

Factor 14 concerns expert witness testimony on valuing the patented technology, which testimony typically is the vehicle for presenting the *Georgia-Pacific* methodology in a case.

- **Factor 15: The amount that a licensor (such as the patentee) and a licensee (such as the infringer) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount that a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.**

Factor 15 sets forth the hypothetical negotiation that is a fundamental part of the *Georgia-Pacific* methodology. In a typical patent case, the hypothetical negotiation takes place at the time that the accused infringer first started infringing the patent. But, for FRAND-committed SEPs, there is some dispute whether that time period should be changed to the date that the standard was adopted, when there were pre-standardization options for consideration.⁶³ Section III.C.1–2. below addresses this dispute.

C. NON-INFRINGEMENT ALTERNATIVES

As stated in Principle No. 7(a) in The Sedona Conference *Commentary on Patent Reasonable Royalty Determinations*:

[t]he reasonable royalty must reflect the extent to which the patented invention represents an improvement over any commercially acceptable and available noninfringing alternatives, including any such alternatives disclosed in the prior art. A royalty which over- or undervalues the inventive contribution of the patent claim is not reasonable.⁶⁴

Evidence of commercially feasible non-infringing alternatives available at the time of infringement may be relevant to a reasonable royalty analysis. Availability of a non-infringing alternative may indicate that an alleged infringer’s bargaining power in a hypothetical negotiation would have been

⁶⁰ *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1324 (Fed. Cir. 2014).

⁶¹ *Ericsson*, 773 F.3d at 1233.

⁶² *Id.* (quoting *Garretson v. Clark*, 111 U.S. 120, 121 (1884)).

⁶³ *See id.* at 1234 n.10 (noting, but not resolving, this dispute).

⁶⁴ *WG9 Reasonable Royalty Determinations Commentary*, *supra* note 1, at 42.

increased because the alleged infringer would have negotiated with knowledge that it had an alternative way to implement the infringing feature or product. Standard-essential patents may present a unique set of circumstances when it comes to non-infringing alternatives, because once a standard is adopted there might not be an alternative to practicing a standard-essential patent.

If non-infringing alternatives are to be considered in a particular case, the next question becomes: how does this analysis differ—if at all—from a traditional non-infringing alternatives analysis in the non-essential patent context?

1. **Must alternatives have existed at the time the standard was adopted?**

Some parties may argue that in order for non-infringing alternatives to be considered in an SEP case, they must have been available at the time the standard was adopted. Other parties may argue that non-infringing alternatives that come into existence after this should be considered if they are available at the time infringement began.

In a traditional patent case, “to be an acceptable non-infringing substitute, the product or process must have been available or on the market at the time of infringement.”⁶⁵ In other words, an infringer would have been able to change how its infringing device operates to adopt a non-infringing substitute and still sell a functional, consumer-acceptable, non-infringing device. However, that might not necessarily be an option in a standard-essential patent damages scenario. The infringer may need to comply with the standard and infringe the asserted SEP. Similarly, once a standard is finalized, changing its parameters can be difficult, or at least time consuming, such that switching to a non-infringing alternative technology is impractical. This will depend on the scope of the patent claims and other facts and circumstances in the particular case.

This has led some to argue that the court should consider non-infringing alternatives that existed at the time the standard was adopted, which would reflect that time at which the consideration of alternative technologies would have been made and locked into the standard, rather than alternatives available after the standard was adopted and the infringement began. Even if alternatives available at the time the standard was adopted are considered, others may argue that additional alternatives should also be considered based on the time when infringement began instead.

The Federal Circuit acknowledged arguments about different potential times to consider alternatives in SEP cases, but declined to decide the issue.⁶⁶ Motorola presented the timing issue to the Ninth Circuit in the *Microsoft v. Motorola* case, but the Ninth Circuit declined to rule on a specific time frame for the hypothetical negotiation due to, among other things, Motorola’s use of evidence that occurred over a widespread period of time that included both when the standard was adopted and when infringement began.⁶⁷ The Working Group has not reached a consensus as to the date to fix for assessing non-infringing alternatives and awaits further case law development of the issue.

⁶⁵ *Grain Processing Corp. v. American Maize-Products Co.*, 185 F.3d 1341, 1349 (Fed. Cir. 1999).

⁶⁶ *Ericsson, Inc. v. D-Link Systems Inc.*, 773 F.3d 1201, 1234 n.10 (Fed. Cir. 2014).

⁶⁷ *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1041–42 (9th Cir. 2015).

If a court determines that additional alternatives should be considered based on the time when infringement began and thus which may have come into existence after the adoption of the standard, as stated in a broader context in The Sedona Conference *Commentary on Reasonable Royalty Determinations*, “it may be appropriate to set different royalty rates to account for the different economic circumstances before and after the date when that proposed alternative became available, acceptable, or noninfringing.”⁶⁸

2. Must alternatives have actually been presented to the SDO?

If the approach of considering alternatives available when the standard was adopted (and not at the time when infringement began) is taken, the issue then arises as to whether only alternatives actually presented to the SDO should be considered or whether additional alternatives in existence should also be considered.

In *Innovatio*, the court attempted to “reconstruct a plausible hypothetical licensing negotiation between the parties immediately before the adoption of the standard.”⁶⁹ The court found that, as part of that negotiation, the parties would consider other alternatives the SDO could adopt because “the presence of equally effective alternatives to the patented technology that could have been adopted into the standard will drive down the royalty that the patent holder could reasonably demand.”⁷⁰ However, in doing so, the court ruled that only alternatives actually presented to the SDO would be considered. The court found that “technology that did not even merit a mention by the IEEE in its deliberations about the standard was not likely to have been a serious contender for adoption into the standard.”⁷¹ Further, the court found it implausible to believe that asserting such a technology would be an effective negotiating point.⁷²

A party may argue that other alternatives that were publicly known but not considered by the SDO should also be considered because any publicly available alternative could have been adopted into the standard. Further, it may argue that the SEP at issue may not have been identified to the SDO, which otherwise may have spurred more diligence at the time to identify alternatives to the technology. The Working Group has not reached consensus on whether alternatives must have been presented to the SDO and awaits further case law development.

3. The cost of a non-infringing alternative

Courts should consider the cost of implementing the proposed non-infringing alternatives, including whether an asserted non-infringing alternative is covered by other patents or is in the public domain.

Non-infringing alternatives for a standard-essential patent may be covered by other patents owned by the patent owner or someone else. When a proposed non-infringing alternative is patented,

⁶⁸ *WG9 Reasonable Royalty Determinations Commentary*, *supra* note 1, at 44.

⁶⁹ *In re Innovatio IP Ventures, LLC Patent Litig.*, 2013 WL 5593609, at *20 (N.D. Ill. Oct. 3, 2013).

⁷⁰ *See id.*

⁷¹ *See id.* at *20.

⁷² *Id.*

parties in a hypothetical FRAND negotiation would recognize that the alternative would likely not be available royalty free. That is, if the patented alternative had been adopted into the standard, the owner of the patent covering the alternative may require a royalty for use of the patented technology.⁷³ Accordingly, patented alternatives “will not drive down the royalty in the hypothetical negotiation as much as technology in the public domain.”⁷⁴ Whether an alternative would drive down the royalty should not be presumed, but depends on the particular circumstances presented, such as whether the alternative is of equal, lower, or higher value to the patented technology.

D. COMPARABLE LICENSES [TO BE PUBLISHED IN STAGE TWO]

E. THE ENTIRE MARKET VALUE RULE (EMVR) AND THE SMALLEST SALABLE PATENT-PRACTICING UNIT (SSPPU) DOCTRINE [TO BE PUBLISHED IN STAGE TWO]

F. OTHER FRAND ROYALTY APPROACHES [TO BE PUBLISHED IN STAGE TWO]

1. Top-down approach

2. Bottom-up approach

G. NON-DISCRIMINATION

While some cases have touched on the issue of non-discrimination,⁷⁵ a recent U.S. district court has provided a detailed analysis of the application of the “non-discriminatory” aspect of FRAND in calculating royalties.⁷⁶ This recent decision has provided some guidance on non-discrimination, summarized below.⁷⁷

⁷³ *Id.* (“[I]t is implausible that in the real world, patent holders would accept effectively nothing to license their technology.”).

⁷⁴ *Id.*

⁷⁵ *See* *Ericsson Inc. v. D-Link Systems Inc.*, 773 F.3d 1201, 1230-31 (Fed. Cir. 2014); *Microsoft Corp. v. Motorola, Inc.*, Case No. C10-1823, 2013 WL 2111217, *18 (W.D. Was. Apr. 25, 2013); *In re Innovatio IP Ventures LLC Patent Litigation*, Case No. 11 C 9308, 2013 WL 5593609, *38 (N.D. Ill. Oct. 3, 2013).

⁷⁶ *TCL Communication Technology Holdings, Ltd. v. Telefonaktiebolaget LM Ericsson*, Case No. SACV 14-341, Memorandum of Findings of Fact and Conclusions of Law (C.D. Cal. Dec. 21, 2017). As of this writing, the court is accepting Rule 52(b) posttrial briefing and will conduct a hearing on motions to alter or amend this ruling in mid-February 2018.

⁷⁷ U.S. International Trade Commission Administrative Law Judge David P. Shaw considered non-discrimination in non-district court investigation, holding that “[t]he FRAND nondiscrimination requirement prohibits ‘unfair discrimination,’ but it does not require uniform treatment across licensees, nor does it require the same terms for every manufacturer or competitor.” Responding to an argument that the patent-holder’s license offers were “discriminatory on their calculation of the ‘effective royalty rate’ of the offers,” ALJ Shaw held that “[a] nondiscrimination analysis, however, requires an examination of the whole of each license agreement, and not just the effective royalty rate.” *Certain Wireless Devices*

In that case, the parties agreed that, under the non-discrimination prong of the FRAND commitment, “like” or “close to like” rates must be offered to firms that are “similarly situated.”⁷⁸ The parties considered “firms using the same technology and at a similar level in the value chain.”⁷⁹ The court found that, because TCL was established in the world market, “for purposes of license comparisons the analysis should include all firms reasonably well-established in the world market.”⁸⁰ In explaining its rationale, the court examined the particular ETSI policy at issue and its goal of facilitating competition in the market.⁸¹ The court noted that excluding large firms, like Apple and Samsung, “would have the effect of insulating them, and further contributing to their dominant positions, by imposing a barrier in the form of higher rates for those not at the top end of the market”⁸² Further, the court found that permitting the patent holder to pick and choose criteria with no relation to its SEPs or the FRAND commitment “would effectively allow [the patent holder] to read the non-discrimination prong out of the FRAND commitment.”⁸³

The court also addressed a number of other issues in its opinion. For example, with respect to whether companies are “similarly situated” for purposes of comparing license terms, the court considered, among other things, the geographic scope of the company, the scope of the license required, and a reasonable sales volume.⁸⁴ The court considered certain factors not-relevant, such as exclusive applications, retail stores, brand recognition, and proprietary operating systems.⁸⁵ The court ruled that ETSI had rejected a most favored nations provision that would have required revisiting prior licensing agreements based on later entered agreements, so Ericsson would not be held accountable for agreements made after its offer to TCL.⁸⁶

With respect to determining the royalty rates of comparable licenses for assessing discrimination, the court compared the effective royalty rate (both monetary and non-monetary consideration) offered to the accused infringer with the effective royalty rate of licenses between the patent holder and companies “similarly situated” to the accused infringer.⁸⁷ The court also evaluated the potential impact of royalty caps and floors.⁸⁸ The court found that harm to the firm offered discriminatory

with 3G Capabilities and Components Thereof, USITC, No. 337-TA-800 at 432 (July 29, 2013) (Shaw, A.L.J.) (initial determination of A.L.J.) (non-precedential).

⁷⁸ *TCL* at 54.

⁷⁹ *Id.* at 57.

⁸⁰ *Id.* at 56.

⁸¹ *Id.*

⁸² *Id.* at 57.

⁸³ *Id.*

⁸⁴ *Id.* at 58.

⁸⁵ *Id.* at 61.

⁸⁶ *Id.* at 13–14, 91.

⁸⁷ *Id.* at 62–64.

⁸⁸ *Id.* at 69.

rates was sufficient; impairment of the development or adoption of the standard was not necessary for discriminatory harm.⁸⁹

With respect to the non-discrimination commitment, the court concluded “there is no single rate that is necessarily FRAND, and different rates offered to different licensees may well be FRAND given the economics of the specific license.”⁹⁰

The *TCL* court acknowledged that its comparable license analysis was “not perfect,” but the offers Ericsson made to TCL “are radically divergent from the rates which Ericsson agreed to accept from licensees similarly situated to TCL.”⁹¹ The decision acknowledged that its analysis addresses a litigated dispute about non-discrimination and does not necessarily apply to what FRAND terms parties may reach in private negotiations.⁹² Similarly, our focus in this *Framework* is case management in patent litigation and does not necessarily apply to address FRAND licensing terms that parties may reach in private negotiations outside of litigation.

It must be noted that some parties argue that the “non-discriminatory” commitment of FRAND means the SEP owner must grant a license to any party that wishes to implement the standard and at least one Standard-Setting Organization has updated its policy guidelines to define the term as such.⁹³ However, other litigants may argue that the “non-discriminatory” commitment of FRAND does not mean that an essential patent owner must ultimately license its SEP to all comers, but instead that non-discriminatory means to treat similarly situated entities similarly and that not licensing certain types of companies is treating them similarly (e.g., industry practice of licensing end product manufacturers, rather than component manufacturers). The Working Group awaits further case law development on this issue.

H. OTHER CONSIDERATIONS [TO BE PUBLISHED IN STAGE TWO]

- 1. FRAND under contract law vs. patent damages law**
- 2. Royalty stacking**
- 3. Patent holdup**
- 4. Lock-in**

⁸⁹ *Id.* at 91.

⁹⁰ *Id.* at 109.

⁹¹ *Id.* at 94.

⁹² *Id.* at 69 (“To be sure, in the course of private negotiations, parties may enter into a variety of licensing schemes that reflect each party’s unique assessment of the risk of a particular arrangement. However, the Court prefers to conduct its FRAND analysis on principles of general application which do not require the Court to discern the peculiarities of those risk assessments.”).

⁹³ *See supra*, Sect. II.D.2. (Examples of FRAND Licensing Commitments—Institute of Electrical and Electronics Engineers (IEEE)).

IV. Injunctive Relief

The Working Group recognizes that the general *eBay* factors and analysis governing issuance of an injunction in general patent cases should also apply in cases involving SEPs. The *Framework* drafting team, however, has divergent views on applying the *eBay* factors for injunctive relief on an SEP and, to date, there is little court guidance on the issue.

In *eBay*, the U.S. Supreme Court set forth the governing standard for issuance of injunctions in patent cases.⁹⁴ Prior to *eBay* the Federal Circuit applied a “‘general rule’ unique to patent disputes, ‘that a permanent injunction will issue once infringement and validity have been adjudged’”⁹⁵ In *eBay*, the Court reversed the Federal Circuit holding “that the decision whether to grant or deny injunctive relief rests within the equitable discretion of the district courts, and that such discretion must be exercised consistent with traditional principles of equity, in patent disputes no less than in other cases governed by such standards.” Those traditional equitable principles are embodied in a four-factor test requiring the movant to show: (1) irreparable injury; (2) that the remedies available at law are inadequate to compensate for that injury; (3) that the balance of hardships between the plaintiff and the defendant favors an injunction; and (4) that the public interest would not be disserved by issuance of an injunction.

Prior to 2014 there was an open question whether a court could issue an injunction prohibiting a party from practicing an SEP. That issue was addressed by the Federal Circuit in *Apple v. Motorola*.⁹⁶ In *Apple*, although the court acknowledged that “FRAND commitments are certainly criteria relevant to . . . entitlement to an injunction,” the court held that there was no need for “a separate rule or analytical framework for addressing injunctions for FRAND-committed patents. The framework laid out by the Supreme Court . . . provides ample strength and flexibility for addressing the unique aspects of FRAND committed patents and industry standards in general.” Because there is no *per se* rule, assessing the propriety of an injunction in an SEP setting turns on the application of *eBay* to the unique circumstances of a particular SEP enforcement.

Many of the substantive arguments that may be raised by SEP-holders and defendants, including those presented below, do not fit neatly within one specific *eBay* factor, but rather can be and often are raised when discussing multiple *eBay* factors.

A. **EBAY FACTOR ONE: WHETHER THE PLAINTIFF HAS SUFFERED AN IRREPARABLE INJURY**

While a variety of issues and considerations can be relevant to assessing the first *eBay* factor, two issues in particular are often raised during the discussion of irreparable harm in the context of SEPs: arguments concerning the causal-nexus requirement, and those concerning willingness to license.

⁹⁴ See *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388 (2006).

⁹⁵ *Id.* at 391 (quoting *MercExchange, LLC v. eBay, Inc.*, 401 F.3d 1323, 1339 (Fed. Cir. 2005)) (internal quotation marks omitted).

⁹⁶ See *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1332 (Fed. Cir. 2014).

1. The causal-nexus requirement

“To satisfy the first *eBay* factor, the patentee must show that it is irreparably harmed by the infringement,” which “requires proof that a ‘causal nexus relates the alleged harm to the alleged infringement.’”⁹⁷ The causal-nexus inquiry begins by asking whether “there is ‘some connection’ between the harm alleged and the infringing acts.”⁹⁸ This causation component requires that “the injury asserted to be irreparable be injury *from the defendant’s use of infringing features.*”⁹⁹ This may be established by showing that the infringing feature is “‘a driver’ of decisions by a substantial number of individual consumer decision-makers considering multiple features.”¹⁰⁰ If a connection is shown, then “[t]he strength of [the patentee’s] evidence of irreparable harm goes to this factor’s weight when assessing the propriety of the injunction.”¹⁰¹

Given the complexity of certain devices, a defendant may argue that the Federal Circuit’s causal-nexus requirement restricts the availability for injunctive relief for devices incorporating multiple additional features and functionalities. The defendant may argue that consumer demand is driven by other features or functionalities of the product or that the aspects covered by the SEP have a negligible independent impact on consumer demand.

A patent holder may respond that the analysis requires only “some connection” between the patented features and the demand for the infringing products. “[I]t is enough that [the patent owner] has shown that these [patented] features were related to infringement and were important to customers when they were examining their [product] choices.”¹⁰²

A defendant may respond that any importance of the feature to customers stems from the need to comply with the standard that has other features sought by customers and that the patented feature alone has little or no influence on the customer’s purchasing decision.

Whether this factor has been met and what weight to give it depends on the circumstances presented. In multi-purchaser, multi-feature situations, which often are presented in SEP cases, the standard here lies somewhere between (i) a too-low showing of an “insubstantial connection”

⁹⁷ *Apple Inc. v. Samsung Electronics Co.*, 809 F.3d 633, 639 (Fed. Cir. 2015) (“*Apple IV*”).

⁹⁸ *Id.* at 640 (citing *Apple Inc. v. Samsung Electronics Co.*, 695 F.3d 1370, 1374 (Fed. Cir. 2012) (“*Apple IP*”).

⁹⁹ *Genband US LLC v. Metaswitch Networks Corp.*, 861 F.3d 1378, 1381 (Fed. Cir. 2017) (emphasis in original).

¹⁰⁰ *Id.* at 1382.

¹⁰¹ *Apple IV*, 809 F.3d at 644 (citing *Apple Inc. v. Samsung Electronics Co.*, 735 F.3d 1352, 1364 (Fed. Cir. 2013) (“*Apple III*”).

¹⁰² *Id.* at 639–644 (“Apple did not need to establish that these features were the exclusive driver of customer demand, which certainly would have weighed more heavily in its favor. Apple did, however, show that ‘a patented feature is one of several features that cause consumers to make their purchasing decisions.’ We conclude that this factor weighs in favor of granting Apple’s injunction.”).

between the infringement and harm and (ii) a too-demanding requirement to show that the infringing feature is “*the driver*” or “sole reason” of customer demand for the product.¹⁰³

In some cases, more than one patent claim may be found infringed by more than one feature of the accused product. In those instances, “when considering whether to enjoin a product, it is proper for the court to consider the aggregate harm caused by all of the infringing features, rather than requiring a patentee to address each patent or claim individually.”¹⁰⁴

2. Willingness to license

The irreparable harm inquiry, “endeavors to measure the harms that damages awards cannot remedy.”¹⁰⁵ With respect to this prong, another factor that courts may assess in determining whether a patentee has been irreparably harmed is evidence that a patentee previously has chosen to license, or made promises to license, the patent.

In the SEP context, the Federal Circuit has held that a FRAND commitment, and prior history of licensing FRAND-committed patents, is strong evidence that a patent holder would not be irreparably harmed absent issuance of an injunction.¹⁰⁶ In other words, “[a] patentee subject to FRAND commitments may have difficulty establishing irreparable harm.”¹⁰⁷ This is particularly true where prior SEP licenses have been granted and the standard has become widely implemented in the industry.¹⁰⁸

However, the patent holder may argue that past licensing history itself may show that there would be irreparable harm in the absence of injunctive relief. District courts should make a specific factual assessment of the circumstances surrounding past licensing behavior to determine the extent to which a past willingness to license evidences that a patentee will not be irreparably harmed if an injunction is denied.¹⁰⁹ Further, a past willingness to license is not always dispositive of irreparable

¹⁰³ *Genband*, 861 F.3d at 1382–84 (“The standard . . . as appropriate to the multi-purchaser, multi-component context, lies between the unduly stringent ‘sole reason’ standard . . . and unduly lax ‘insubstantial connection’ standard[s] we rejected . . .”).

¹⁰⁴ *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1330 (Fed. Cir. 2014).

¹⁰⁵ *Hydrodyamic Industrial Co Ltd. V. Green Max Distributors, Inc.*, 2014 WL 2740368, at *3 (June 16, 2014) (citing *Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 930 (Fed. Cir. 2012)).

¹⁰⁶ *Apple v. Motorola*, 757 F.3d at 1332 (“Motorola’s FRAND commitments, which have yielded many license agreements encompassing the ‘898 patent, strongly suggest that money damages are adequate to compensate Motorola for any infringement.”).

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* (“Considering the large number of industry participants that are already using the system claimed in the ‘898 patent, including competitors, Motorola has not provided any evidence that adding one more user would create such harm. Again, Motorola has agreed to add as many market participants as are willing to pay a FRAND royalty.”).

¹⁰⁹ *See, e.g., Apple Inc. v. Samsung Electronics Co., Ltd.*, 735 F.3d 1352, 1369–70 (Fed. Cir. 2013).

harm,¹¹⁰ and a patent holder may argue that “an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect.”¹¹¹ To this end, the Federal Circuit has confirmed that “[p]rice erosion, loss of goodwill, damage to reputation, and loss of business opportunities are all valid grounds for finding irreparable harm.”¹¹²

The patent holder may argue that its FRAND commitment was to enter reasonable and good faith negotiations toward a FRAND license and that its harm is not merely financial in some circumstances when an alleged infringer does not negotiate reasonably and in good faith. For example, the patent holder may allege there has been reputational harm or lost opportunities based on that refusal to negotiate, which extends beyond financial injury. The defendant may counter, however, that any injury based on refusal to negotiate reasonably in the FRAND context can be fully compensated by monetary damages.

Finally, a patent holder may also argue that its past willingness to license the SEP should only be considered in connection with the separate *eBay* factor relating to the adequacy of monetary damages to compensate for infringement, discussed below, and should not undercut an otherwise adequate showing of irreparable harm.

B. EBAY FACTOR TWO: WHETHER THE REMEDIES AVAILABLE AT LAW ARE INADEQUATE TO COMPENSATE FOR THE INJURY

The second *eBay* factor requires the standard-essential patent holder to prove that “remedies available at law, such as monetary damages, are inadequate to compensate for that injury.”¹¹³

A defendant opposing a request for injunction may argue that, although there is no *per se* rule that injunctions are unavailable for SEPs, a FRAND commitment strongly suggests that money damages are adequate to fully compensate the patent holder for any infringement by standard-compliant products.¹¹⁴ As support, the infringer may cite to the licensing commitments themselves and associated IPR policies as well as case law addressing the seeking of injunctions despite a past history of licensing.¹¹⁵

An SEP-holder seeking an injunction may, on the other hand, argue that its willingness to license its standard-essential patents on FRAND terms does not automatically mean money damages are sufficient compensation for infringement.¹¹⁶ As support, the patent holder may point to the absence

¹¹⁰ *Id.*

¹¹¹ *Apple v. Motorola*, 757 F.3d at 1332.

¹¹² *Celsis In Vitro, Inc. v. CellzDirect, Inc.*, 664 F.3d 922, 930 (Fed. Cir. 2012).

¹¹³ *eBay v. MercExchange, L.L.C.*, 547 U.S. 388, 391 (2006).

¹¹⁴ *See, e.g., Apple v. Motorola*, 757 F.3d at 1332 (“FRAND commitments are certainly criteria relevant to [an] entitlement to an injunction”).

¹¹⁵ *Id.*

¹¹⁶ *Apple Inc. v. Samsung Electronics Co., Ltd.*, 735 F.3d 1352, 1369 (Fed. Cir. 2013) (“[A] defendant’s ability to pay a judgment does not defeat a claim that an award of damages would be an inadequate

of any express waiver of the right to seek injunctive relief in its licensing commitment to the standard-development organization. The patent holder may also argue that interpreting the FRAND commitment to entirely preclude injunctions would conflict with the statements in *eBay* that even patent holders who choose to license their technology rather than use it exclusively are not *per se* precluded from obtaining injunctive relief under the *eBay* test.¹¹⁷ The patent holder could also note that, in *Apple v. Motorola*, the Federal Circuit rejected a categorical ban on injunctions for standard-essential patents.¹¹⁸

The patent holder might argue that monetary damages are inadequate to compensate for infringement of its standard-essential patents because of what it argues is “patent holdout” in the marketplace. The patentee may argue that when infringers—particularly infringers with large market share—routinely “hold out” by infringing standard-essential patents without timely taking licenses, this course of conduct could become the industry norm. This in turn makes it more difficult and expensive for the patent holder to efficiently and successfully license its standard-essential patents. The patentee may argue that the cost and burden of litigating becomes so high that the patent holder cannot secure full compensation in the form of money damages. Defendants may counter that seeking an injunction based on an SEP constitutes a form of patent “hold-up,” whereby a patent holder seeks to leverage its monopoly power associated with ownership of a necessary patent to obtain excessive compensation. As the Federal Circuit has stated, “[p]atent hold-up exists when the holder of an SEP demands excessive royalties after companies are locked into using a standard.”¹¹⁹

An alleged infringer may also argue that its willingness and ability to pay money damages likewise establish that remedies at law are adequate compensation for its use of the patented technology at issue. The patent holder may respond by pointing to the Federal Circuit’s reasoning, in *Apple v. Samsung*, that “a defendant’s ability to pay merely indicates that a court should look to other considerations to determine whether a damages award will adequately compensate the patentee for the harm caused by continuing infringement.”¹²⁰ Further, if the infringer is in fact demonstrated to be unavailable or unable to pay a judgment, the patent holder could use that fact to argue that money damages are inadequate compensation for the infringement.¹²¹

remedy.”) (citing *Roper Corp. v. Litton Sys., Inc.*, 757 F.2d 1266, 1269 n.2 (Fed. Cir. 1985) (rejecting the view that an alleged infringer’s “ability to compensate” ends the court’s inquiry)).

¹¹⁷ *eBay*, 547 U.S. at 393.

¹¹⁸ *Apple v. Motorola*, 757 F.3d at 1332 (holding that although “FRAND commitments are certainly relevant to [the] entitlement to an injunction,” there is no reason for “a separate rule” for FRAND-committed patents”).

¹¹⁹ *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1209 (Fed. Cir. 2014).

¹²⁰ *Apple Inc. v. Samsung Electronics Co.*, 735 F.3d 1352, 1369 (Fed. Cir. 2013) (“*Apple III*”).

¹²¹ *Id.* (recognizing that an infringer’s inability to pay a judgment “may demonstrate the inadequacy of damages”).

C. EBAY FACTOR THREE: WHETHER THE BALANCE OF HARDSHIPS BETWEEN THE PLAINTIFF AND THE DEFENDANT FAVORS AN INJUNCTION

“To satisfy the third eBay factor, the patentee must show that the balance of hardships weighs in its favor.”¹²² “This factor ‘assesses the relative effect of granting or denying an injunction on the parties.’”¹²³

In *Apple v. Motorola*, the Federal Circuit considered this factor in light of the “unique aspects of FRAND committed patents and industry standards in general.”¹²⁴ In upholding the district court’s determination that the patent holder was not entitled to an injunction for infringement of its SEP, the Federal Circuit identified various factors that may be relevant to the balance of hardships:

- ***The FRAND commitment:*** Since the patent at issue was FRAND-committed, the patent holder had “agreed to add as many market participants as are willing to pay a FRAND royalty,” including competitors.¹²⁵ The court also noted, however, that there is no *per se* rule that injunctions are unavailable for SEPs.¹²⁶
- ***The status and nature of the license negotiations:*** In this case, license negotiations were “ongoing,” and there was no evidence that the defendant had been “unilaterally refusing to agree to a deal.”¹²⁷ “On the other hand,” the court noted, “an injunction may be justified where an infringer unilaterally refuses a FRAND royalty or unreasonably delays negotiations to the same effect.”¹²⁸
- ***The number of industry participants already using the patent:*** Because the patent was determined standard-essential, there was a lack of evidence that “adding one more user” would harm the patent holder.¹²⁹

In assessing the balance of hardships, courts may consider the availability of money damages to the patent holder.¹³⁰ In the case of FRAND-committed patents, the infringer may argue that it is willing to pay a court-ordered FRAND royalty to the patent owner and, therefore, no injunction should be entered because the patent owner ultimately will be made whole. The patent owner, however, may

¹²² *Apple Inc. v. Samsung Electronics Co.*, 809 F.3d 633, 645 (Fed. Cir. 2015) (“*Apple IV*”).

¹²³ *Apple III*, 735 F.3d at 1371.

¹²⁴ 757 F.3d 1286, 1332 (Fed. Cir. 2014).

¹²⁵ *Id.*

¹²⁶ *Id.* at 1331.

¹²⁷ *Id.* at 1332.

¹²⁸ *Id.*

¹²⁹ *Id.*

¹³⁰ *See, e.g., ActiveVideo Networks, Inc. v. Verizon Communications, Inc.*, 694 F.3d 1312, 1341 (Fed. Cir. 2012).

argue that such delayed royalty payment would not make the patent owner whole because it would delay receipt of much needed funds to invest in its on-going business or other considerations. This factor would ordinarily favor the defendant if it is willing to pay a court-ordered FRAND royalty. On the other hand, this factor may favor the patent holder if the accused infringer refuses or is unable to pay a court-ordered FRAND royalty.

Courts have also evaluated balance of hardships with respect to the existence of copying, finding such evidence tips the balance of hardships against an infringer.¹³¹ An infringer may argue that the existence of copying has no application to SEPs, because the very purpose of standards is to encourage widespread adoption. The patent owner, however, may argue that such an argument is, at most, incomplete because an important purpose of standards also is to create new and better standards that are worthy of widespread adoption; allowing someone to copy the technology in the standard without adequately compensating patent owners who contributed their innovations to the standard would frustrate that important purpose.

Courts have also considered the competitive relationship between the parties in assessing balance of hardships.¹³² The defendant may argue, however, that the competitive relationship between the parties should not be relevant to a balance of hardships analysis where a FRAND-committed SEP is at issue because a FRAND license must be “non-discriminatory.” In summary, the FRAND commitment may make the “commercial relationship between the licensor and licensee” “irrelevant because [the patent holder] must offer licenses at a *non-discriminatory* rate.”¹³³ The patent holder may argue, however, that the competitive relationship should be relevant in at least some instances in the SEP context, for example, where the defendant is an unwilling licensee or has refused to negotiate in good faith. Additionally, a patent holder may counter that *Ericsson* is not an injunction case and that no current case law clearly defines the “non-discriminatory” requirement of FRAND to include eliminating the competitor relationship as a factor for consideration under an eBay analysis.

Outside of the SEP context, the Federal Circuit has found that the availability of a design-around tends to find in favor of the plaintiff in the balance of hardships analysis.¹³⁴ Similarly, a sunset provision that gives the defendant time to design around the patent may mitigate the hardship to the

¹³¹ See *Apple, Inc. v. Samsung Electronics, Ltd.*, 678 F.3d 1314, 1338 (Fed. Cir. 2012) (finding “some evidence that Samsung altered its design to make it look like Apple’s . . . further tips the balance of hardships against Samsung”).

¹³² See, e.g., *Robert Bosch LLC v. Pylon Manufacturing Corp.*, 659 F.3d 1142, 1156 (Fed. Cir. 2011) (“[R]equiring Bosch to compete against its own patented invention, with the resultant harms described above, places a substantial hardship on Bosch.”).

¹³³ *Ericsson, Inc. v. D-Link Systems, Inc.*, 773 F.3d 1201, 1230–31 (Fed. Cir. 2014) (finding under a *Georgia-Pacific* analysis that certain *Georgia-Pacific* factors are not relevant in the context of FRAND-committed patents).

¹³⁴ See, e.g., *Douglas Dynamics, LLC v. Buyer Products Co.*, 717 F.3d 1336, 1345 (Fed. Cir. 2013) (when infringer “ha[s] a non-infringing alternative which it could easily deliver to the market, then the balance of hardships would suggest that [it] should halt infringement”).

defendant from an injunction.¹³⁵ In the SEP context, however, the essential nature of the patent ordinarily means a design-around is impractical.

D. EBAY FACTOR FOUR: WHETHER THE PUBLIC INTEREST WOULD BE DISSERVED BY ISSUANCE OF AN INJUNCTION

“The fourth *eBay* factor requires the patentee to show that ‘the public interest would not be disserved by a permanent injunction.’”¹³⁶ “[T]he touchstone of the public interest factor is whether an injunction, both in scope and effect, strikes a workable balance between protecting the patentee’s rights and protecting the public from the injunction’s adverse effects.”¹³⁷

The case law regarding injunctions for SEPs and application of the public interest factor continues to evolve.

The defendant may argue, among other things, that:

- the FRAND commitment “must be construed in the public interest because it is crafted for the public interest,” and that the public interest supports enforcement of the patent owner’s promise to license SEPs;¹³⁸
- the standard exists to deter patent hold-up harming competition and consumers, and the public interest is thus also served by enforcing the licensing commitment rather than permitting market exclusion;¹³⁹
- there are various government agency policy statements and filings opposing injunctive relief for patents on the basis of public and consumer interests;¹⁴⁰ and
- preventing companies from building standard-compliant products is contrary to the public interest.

On the other hand, the patent holder may argue, among other things, that:

¹³⁵ *See, e.g.*, *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1338–39 (Fed. Cir. 2013) (“[I]n exercising its discretion for equitable remedies, the district court formed a well-crafted sunset period.”).

¹³⁶ *Apple Inc. v. Samsung Electronics Co.*, 801 F.3d 1352, 1364 (Fed. Cir. 2015) (quoting *eBay Inc. v. MercExchange, LLC*, 547 U.S. 388, 391 (2006)).

¹³⁷ *i4i Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831, 863 (Fed. Cir. 2010).

¹³⁸ *Microsoft Corp. v. Motorola, Inc.*, 795 F.3d 1024, 1030–31, n.22 (9th Cir. 2015).

¹³⁹ *Ericsson, Inc. v. D-Link Systems Inc.*, 773 F.3d 1201, 1209 (Fed. Cir. 2014). *See supra*, Section III.H.3. for more complete discussion of patent “hold up.”

¹⁴⁰ *See, e.g.*, U.S. Dept. of Justice & Pat. & Trademark Off., Policy Statement on Remedies for Standards-Essential Patents Subject to Voluntary F/RAND Commitments (January 8, 2013).

- granting an injunction on a valid and infringed patent is in the public interest;¹⁴¹
- the public interest also favors protecting the rights of SEP owners so that they will be encouraged to contribute innovations to standards, making such standards worthy of widespread adoption by consumers;
- the public interest favors enforcing the agreement between the patent holder and the SDO that a prospective licensee must negotiate reasonably and in good faith in order to benefit from a FRAND commitment;¹⁴² and
- the Federal Circuit precludes considering abstract arguments about patent holdup, which is only relevant based on specific evidence of holdup in a specific case.¹⁴³

¹⁴¹ See *Apple Inc. v. Samsung Electronics Co., Ltd.*, 809 F.3d 633, 647 (Fed. Cir. 2015) (holding that “the public interest nearly always weighs in favor of protecting property rights in the absence of countervailing factors” and “the encouragement of investment-based risk is the fundamental purpose of the patent grant, and is based directly on the right to exclude.”).

¹⁴² See *Apple Inc. v. Motorola, Inc.*, 757 F.3d 1286, 1332 (Fed. Cir. 2014) (“Motorola argues that Apple has refused to accept its initial licensing offer and stalled negotiations. However, the record reflects that negotiations have been ongoing, and there is no evidence that Apple has been, for example, unilaterally refusing to agree to a deal.”).

¹⁴³ *Ericsson*, 773 F.3d at 1234.

V. Standard-Essential Patents Not Subject to a Standard-Setting Commitment

Although standard-essential patents are often subject to some commitment to the organization that set the standard on which the patent reads, that will not always be the case. This section addresses issues to consider when a patent reads on a standard, but there is not a FRAND or other standard-setting commitment associated with the patent.

A. CIRCUMSTANCES IN WHICH SEPS ARE NOT SUBJECT TO A STANDARD-SETTING COMMITMENT

In many cases involving standard-essential patents, the patent owner (or a prior owner of the patent) will have provided some licensing assurances, often a FRAND commitment, in connection with its participation in the relevant standard-setting organization. However, sometimes a patent that is not subject to a FRAND or other standard-setting commitment may read on a standard. There are a variety of circumstances in which that might occur.

There may be circumstances where a standard is set without the participation or involvement of patent owners whose patents are encompassed within the standard. It is possible that those developing the SDO standard did not even know about a patent that turns out to read on its standard. The patent may have been pending in a patent application unknown to any participant and later issue with claims essential to the standard.

There may be circumstances where a patent owner submits a statement disclaiming any licensing commitment, but the patented technology is nonetheless included in the standard. SDOs might make such decisions based on the potential cost differential compared to alternative technologies (if any) or based on the technical merit of the technology for which no commitment was provided.

The circumstances leading to the absence of an SDO commitment may be relevant to a court in determining the appropriate remedy for infringement of a valid claim of an SEP.

B. THE AVAILABILITY OF INJUNCTIVE RELIEF FOR SEPS NOT SUBJECT TO A STANDARD-SETTING COMMITMENT

The Federal Circuit has made clear that even in the SEP context, courts should apply the traditional *eBay* factors to determine whether injunctive relief is appropriate.¹⁴⁴

Under the traditional *eBay* factors, a court must consider whether (1) the patent owner has suffered an irreparable injury; (2) remedies available at law are inadequate to compensate for that injury; (3) considering the balance of hardships between the plaintiff and the defendant, a remedy in equity is warranted; and (4) the public interest is disserved by issuance of an injunction. The fact that a patent

¹⁴⁴ See *supra*, Sect. IV (Injunctive Relief), for a more complete discussion of injunctions in the SEP context; see also *eBay Inc. v. MercExchange, LLC.*, 547 U.S. 388 (2006).

is standard-essential, but not subject to a standard-setting commitment will be more relevant to some of these factors than others.

1. Irreparable harm

For example, as discussed in Section IV (Injunctive Relief) above, where the owner of a FRAND-committed patent “may have difficulty establishing irreparable harm,” considering its willingness to license and actual licensing of its patent,¹⁴⁵ the situation may be different for the owner of a non-FRAND-committed SEP who has made no licensing commitment and has not had a history of licensing its patents. Such an SEP owner may have an argument that infringement causes it irreparable injury for which damages are not an adequate remedy. The merits of such arguments will depend on the facts and circumstances.

2. Remedies available at law

As discussed in Section IV above, the arguments concerning whether there is an adequate remedy at law in the absence of an injunction may mirror those presented in the irreparable harm factor above.

3. Balance of hardships

The accused infringer and patentee may still make many of the arguments discussed in Section IV regarding the balance of hardships. Further, accused infringers may argue that the fact that a patent is an SEP may be relevant to the third *eBay* factor even absent a standard-setting commitment. In considering the balance of the equities, the harm to the defendant goes beyond not being able to practice just the patented invention, but extends to not being able to sell a product that is completely standard compliant. In considering this factor, the court may consider the conduct of the SEP owner, the infringer, and perhaps even the SDO. For example, the court may consider (i) whether the SEP owner knowingly acquiesced in the SEP being built around its technology, (ii) whether the accused infringer knew or should have known that the patent owner had not agreed to give a licensing commitment to the patent, or (iii) the conduct of the parties, if any, in negotiating a license.

4. The public interest

The accused infringer and patentee may still make many of the arguments discussed in Section IV above regarding the public interest.¹⁴⁶ Further, accused infringers may argue that the existence of standardization raises additional public interest concerns, even absent a FRAND commitment. Courts have recognized that standards may significantly benefit consumers as well as industry participants. The Federal Circuit observed in *Apple v. Motorola* that “the public has an interest . . . in ensuring that SEPs are not overvalued.”¹⁴⁷ An accused infringer, therefore, may argue that, regardless of how a patent became part of a standard, once it is an SEP, injunctive relief reaches more broadly than the four corners of the patent itself. The patent owner, however, may argue that U.S. law does not recognize compulsory licensing as being in the public interest.

¹⁴⁵ *Apple v. Motorola*, 757 F.3d 1286, 1332 (Fed. Cir. 2014).

¹⁴⁶ *See supra*, Sect. IV.D. (Injunctive Relief—*eBay* Factor Four).

¹⁴⁷ *Id.*

C. REASONABLE ROYALTY DAMAGES FOR SEPS NOT SUBJECT TO A STANDARD-SETTING COMMITMENT—*GEORGIA-PACIFIC* ANALYSIS

The fact that a patent is standard essential will affect the way courts determine reasonable royalty damages. The *Georgia-Pacific* factors must account for standardization, even absent a FRAND commitment.¹⁴⁸ Special care should be taken to apply apportionment principles to ensure that the SEP owner is not over or under-compensated based on the SEP's inclusion in the standard.

The Federal Circuit has long accepted the *Georgia-Pacific* factors in making reasonable royalty calculations. However, as discussed in Section III.B. above, not all of those factors are relevant in any particular case. Specifically, in the context of standardization, at least several factors need to be adjusted for SEPs generally.¹⁴⁹ We discuss some of those factors below.

1. *Georgia-Pacific* Factor 8: The established profitability of the product made under the patents; its commercial success; and its current popularity.

Care should be given when considering “commercial success” and “current popularity” of the patented invention that is essential to a standard, because they are “likely inflated because a standard requires the use of the technology.”¹⁵⁰

2. *Georgia-Pacific* Factor 9: The utility and advantages of the patent property over the old modes or devices, if any, that had been used for working out similar results.

The Federal Circuit has found that Factor 9, utility and advantages of the patented invention over the old modes or devices, “is also skewed for SEPs” since the technology is used because it was required to practice the standard and not necessarily because it is an improvement over the prior art.¹⁵¹

3. *Georgia-Pacific* Factor 10: The nature of the patented invention; the character of the commercial embodiment of it as owned and produced by the licensor; and the benefits to those who have used the invention.

Factor 10 considers the commercial embodiment of the licensor, which the Federal Circuit has found “irrelevant as the standard requires the use of the technology.”¹⁵²

¹⁴⁸ See *Commonwealth Scientific & Industrial Research Organization (CSIRO) v. Cisco Systems, Inc.*, 809 F.3d 1295, 1304 (Fed. Cir. 2015) (“... *Ericsson* explicitly holds that the adjustments to the *Georgia-Pacific* factors apply equally to RAND-encumbered patents and SEPs.”).

¹⁴⁹ *Ericsson, Inc. v D-Link Systems, Inc.*, 773 F.3d 1201, 1231; see also *CSIRO*, 809 F.3d at 1305 (“*Ericsson* calls out Factors 8, 9, and 10 as all being irrelevant or misleading in cases involving SEPs.”).

¹⁵⁰ *Ericsson*, 733 F.3d at 1231 (Fed. Cir. 2014).

¹⁵¹ *Id.*

¹⁵² *Id.*

4. *Georgia-Pacific* Factor 13: The portion of the realizable profit that should be credited to the invention as distinguished from non-patented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

As discussed under factor 13 of the *Georgia-Pacific* factors in Section III.B. above, the fact that a patent is standard essential will require additional apportionment analysis, regardless whether that patent is subject to a standard-setting commitment. Where the patent owner specifically refused to provide any commitment to the SDO and the SDO nonetheless included the patented technology in the standard, the patent owner may argue that such inclusion indicates that its SEP has a high value to the standard.

VI. International Trade Commission [TO BE PUBLISHED IN STAGE TWO]

- A. SEPS IN THE ITC**
- B. APPLICABILITY OF FRAND/SEP ISSUES**
 - 1. Affirmative defenses
 - 2. Counterclaims
 - 3. Public interest considerations
- C. ITC SEP LITIGATION**
 - 1. Delegation of the public interest issue to the ALJ
 - 2. Determination of burden allocation
 - 3. Conditional remedies

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Hon. Barbara M. G. Lynn, Chief U.S. District Judge, Northern District of Texas
Hon. Paul R. Michel (ret.), U.S. Appellate Judge, Court of Appeals for the Federal Circuit
Hon. Kathleen M. O'Malley, U.S. Appellate Judge, Court of Appeals for the Federal Circuit
Hon. James L. Robart, U.S. District Judge, Western District of Washington
Hon. Gail J. Standish, U.S. Magistrate Judge, Central District of California
Hon. Nina Y. Wang, U.S. Magistrate Judge, District of Colorado
Hon. Ronald M. Whyte (ret.), U.S. District Judge, Northern District of California

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